

BOSTON PUBLIC LIBRARY
GOVERNMENT DOCUMENTS DEPARTMENT
RECEIVED

APR 26 1994

1991 Annual Report

Vital Statistics of Massachusetts

GOVDOC
6457

.1

2

Massachusetts Department of Public Health
Public Document No. 1

William F. Weld
Governor
Charles D. Baker
Secretary
David H. Mulligan
Commissioner
Elaine B. Trudeau
Registrar

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF HEALTH AND HUMAN SERVICES
DEPARTMENT OF PUBLIC HEALTH
Registry of Vital Records and Statistics
150 Tremont Street
BOSTON MA 02111
TELEPHONE: 617/727-0036 FAX: 617/727-8108

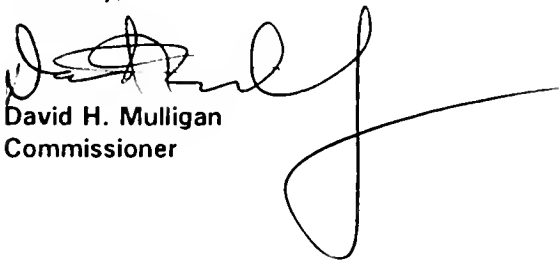
October 1993

To the Honorable Senate and
House of Representatives:

We have the honor to submit as required by Chapter 111, Section 2 of the General Laws, the one hundred fiftieth annual report on statistics of births, deaths, marriages and divorces in Massachusetts for the calendar year 1991.

This is the twenty-eighth *ANNUAL REPORT OF VITAL STATISTICS* published by the Department of Public Health and is intended to assist in the development of policy and programmatic initiatives within the Department, as well as to provide State officials and agencies, and the general public, with valuable statistical information.

Sincerely,

A handwritten signature in black ink, appearing to read 'David H. Mulligan', with a long, sweeping horizontal line extending to the right.

David H. Mulligan
Commissioner

**ANNUAL REPORT
VITAL STATISTICS OF MASSACHUSETTS
PUBLIC DOCUMENT #1
1991**

**THE COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF PUBLIC HEALTH**

**WILLIAM F. WELD, GOVERNOR
CHARLES D. BAKER, SECRETARY OF HEALTH AND HUMAN SERVICES
DAVID H. MULLIGAN, COMMISSIONER OF PUBLIC HEALTH**

**DANIEL J. FRIEDMAN, PH.D., ASSISTANT COMMISSIONER,
BUREAU OF HEALTH STATISTICS, RESEARCH AND EVALUATION**

**ELAINE B. TRUDEAU, REGISTRAR,
REGISTRY OF VITAL RECORDS AND STATISTICS**

**150 TREMONT STREET
BOSTON, MASSACHUSETTS 02111**

OCTOBER 1993

Publication of this document approved by Philmore Anderson III, State Purchasing Agent

ACKNOWLEDGEMENTS

This publication of the 1991 ANNUAL REPORT OF VITAL STATISTICS is the result of the combined efforts of all data providers, including the 351 city and town clerks, hospital personnel, physicians, funeral directors, probate courts, clinics, and Department of Public Health personnel. We gratefully acknowledge the assistance provided by all data providers, without whose efforts there would be no vital statistics.

Department of Public Health staff most significantly involved in the production of the 1991 ANNUAL REPORT OF VITAL STATISTICS include:

Bruce Cohen, Joan Gancarski, Raymond Vezina and Charlene Zion, Bureau of Health Statistics, Research and Evaluation: assistance and technical data from Advance Data: Births 1991 and Advance Data: Deaths 1991;

Robert Danley, Bureau of Health Statistics, Research and Evaluation: population statistics;

Michael Healey, Division of Data Processing: data file management and vital events series printouts;

Duke Rhoden, Bureau of Health Statistics, Research and Evaluation: supervision of computer graphics and special table production, with programming by Robert S. Woodburn and Charlene Zion;

Dennis Sterzin, Graphic Design Center: graphics layout and assistance;

Raymond Vezina, Bureau of Health Statistics, Research and Evaluation: technical assistance with age-adjusted rates;

Phyllis Zeuli, Assistant Registrar for Statistics: supervision of data collection, coding and editing, with technical assistance from Maureen McKean (Statistics Unit Supervisor) and Robert Coffin (Chief Nosologist).

The joint efforts of all the staff of the Registry of Vital Records and Statistics are necessary to produce the data contained in this publication. Special acknowledgement is made to the following Registry supervisors:

Karin Barrett, Data Quality Assurance Coordinator, who oversees the hospital query program for birth certificate data and provides assistance in developing specialized table production;

Alan Goldin, Director of Automation, who is responsible for the installation and supervision of the Automated Vital Statistics System (AVSS) and all computer-based systems in the Registry office;

James Orseno, Operations Unit Supervisor, who is responsible for all printing and mailing of forms;

Phyllis Rotman, Registration Unit Supervisor, who is responsible for coordination with cities and towns to produce the data in a timely fashion.

Lisa Varnerin, Records Unit Supervisor, who is responsible for maintaining all records and issuing certified copies;

The 1991 ANNUAL REPORT OF VITAL STATISTICS has been compiled and produced under the general supervision and direction of:

**Daniel J. Friedman, Ph.D., Assistant Commissioner
Bureau of Health Statistics, Research and Evaluation**

**Elaine B. Trudeau, Registrar of Vital Records and Statistics
Registry of Vital Records and Statistics**

A handwritten signature in cursive script, reading "Frances A. Vitagliano", is written over a horizontal line.

**Frances A. Vitagliano, Asst. Registrar
Editor**

CONTENTS

TRANSMITTAL LETTER	i
ACKNOWLEDGEMENTS	v
TABLE OF CONTENTS	vii
INTRODUCTION	1

SECTION A--VITAL EVENTS

Table A-1	Selected Facts in Vital Statistics, Massachusetts: 1991	11
Figure A-1	1991 Massachusetts Daily Vital Events	12
Table A-2	Number and Crude Rates of Vital Events, Massachusetts and United States: 1990-1991	13
Figure A-2	Rate of Natural Increase, Massachusetts and United States: 1910-1991	14
Table A-3	Massachusetts Resident Births and Deaths With Resultant Natural Increase: 1900-1991	15
Table A-4	Vital Events by Month, Massachusetts Residents: 1991	16
Table A-4A	Vital Events by Community: 1991	17
Table A-4B	Vital Events by County: 1991	28

SECTION B--BIRTHS

Figure B-1	1991 Massachusetts Daily Birth Statistics	39
Table B-1	Trends in Birth Characteristics, Massachusetts Residents: 1980-1991	40
Table B-2	Age-Specific and Crude Birth Rates, Massachusetts Resident Births: 1990-1991	41
Figure B-2	Resident Live Births by Mother's Race/Ethnicity: 1991	42
Figure B-3	Resident Live Births by Mother's Age: 1991	42

SECTION B--BIRTHS (continued)

Table B-3	Births by Mother's Age, Marital Status and Race/Ethnicity, Massachusetts Resident Births: 1991	43
Table B-4	Resident Births to Teenage Mothers: 1970-1991	44
Table B-5	Births by Birthweight and Mother's Race/Ethnicity, Massachusetts Resident Births: 1991	45
Table B-6	Birth Characteristics by Mother's Race/Ethnicity, Massachusetts Resident Births: 1991	46
Figure B-4	Trends in Adequacy of Prenatal Care by Mother's Race, Massachusetts: 1980-1991	47
Figure B-5	Adequacy of Prenatal Care by Prenatal Care Source of Payment, Massachusetts: 1991	47
Table B-7	Parity by Age of Mother, Massachusetts Resident Births: 1991	48
Table B-8	Number of Primary and Repeat Caesarean Sections by Age, Massachusetts Resident Births: 1991	49
Table B-9	Birthweight in Grams by Mother's Age, Number and Rate Per Thousand Live Births, Massachusetts Resident Births: 1991	50
Table B-10	Hospital Profiles, Massachusetts Occurrence Births: 1991	51

SECTION C--DEATHS

Figure C-1	1991 Massachusetts Daily Death Statistics	71
Figure C-2	Five Leading Causes of Death, Massachusetts: 1991	72
Table C-1	Trends in Mortality Characteristics, Massachusetts Resident Deaths: 1980-1991	73
Table C-2	Five Leading Causes of Death, Age-Adjusted Rates, Massachusetts and United States: 1980-1991	74

SECTION C--DEATHS (continued)

Table C-3	Leading Causes of Death by Age, Massachusetts Residents: 1991	75
Table C-4	Resident Deaths by Age, Sex and Race, Massachusetts Residents: 1991	76
Table C-5	Deaths by Underlying Cause and Mentioned Conditions, Massachusetts Residents: 1991	77
Table C-6	Cancer Deaths by Underlying Cause and Mentioned Conditions, Massachusetts Residents: 1991	78
Table C-7	Atherosclerosis, Hypertensive Disease and Diabetes, Underlying Cause and Mentioned Conditions by Age Group and Sex, Massachusetts Resident Deaths: 1991	79
Table C-8	Suicides by Method, Sex and Age, Massachusetts Resident Deaths: 1991	80
Table C-9	Motor Vehicle Deaths by Type, Massachusetts Residents: 1991	81
Figure C-3	Motor Vehicle Deaths, Age-Specific Rates, Massachusetts: 1991	82
Table C-10A	AIDS and HIV-Related Deaths by Cause and Place of Occurrence, Massachusetts Resident Deaths: 1987-1991	83
Table C-10B	AIDS and HIV-Related Deaths by Sex, Race and Age, Massachusetts Resident Deaths: 1987-1991	83
Figure C-4	Heart Disease Deaths by Race and Sex, Age- Adjusted Rates, Massachusetts: 1970-1991	84
Table C-11	Cancer Deaths by Leading Causes, Age-Adjusted Rates, Massachusetts Resident Deaths: 1991	85
Figure C-5	Cancer Deaths by Race and Sex, Age-Adjusted Rates, Massachusetts: 1970-1991	86
Table C-12	Medical Examiner Certified Deaths by Cause, Race, Sex and Age, Massachusetts Occurrence: 1991	87
Figure C-6	Proportion of Deaths Certified by Medical Examiner for Selected Causes of Death, Occurrence Deaths, Massachusetts: 1991	90

SECTION C--DEATHS (continued)

Table C-13	Medical Examiner Certified Deaths by County, Massachusetts Occurrence: 1991	91
Table C-14A	Selected Causes of Death by City and Town of Residence: 1991	92
Table C-14B	Selected Causes of Death by County of Residence: 1991	100
Table C-15	Resident Deaths by Cause, Sex, and Race: 1991	101

SECTION D--INFANT & NEONATAL DEATHS

Figure D-1	Infant Mortality Rates by Mother's Race, Massachusetts: 1980-1991	123
Figure D-2	Neonatal Mortality Rates by Mother's Race, Massachusetts: 1980-1991	124
Table D-1	Infant and Neonatal Deaths, Massachusetts and United States Resident Deaths: 1970-1991	125
Table D-2	Trends in Infant, Neonatal and Post Neonatal Mortality by Race, Massachusetts Resident Deaths: 1980-1991	126
Table D-3	Infant and Neonatal Deaths by Selected Causes, Massachusetts Resident Deaths: 1991	128
Table D-4	Infant and Neonatal Deaths by Age, Sex, Race and Ethnicity, Massachusetts Resident Deaths: 1991	129
Figure D-3	Neonatal Deaths by Mean Birthweight: 1969-1991	130
Table D-5	Neonatal Mortality by Birthweight, Massachusetts Resident Births/Deaths: 1980-1991	131

SECTION E--MARRIAGES & DIVORCES

Table E-1	Marriages and Divorces by County, Massachusetts Occurrence: 1991	137
Figure E-1	Rates of Marriages and Divorces per 1,000 Population: 1900-1991	138

SECTION E--MARRIAGES & DIVORCES (continued)

Table E-2	Marriages and Divorces and Rates per 1,000 Population, Massachusetts Occurrence: 1900-1991	139
Table E-3	Marriages by Age and Marital Status, Massachusetts Occurrence: 1991	140
Table E-4	Number of Marriages by Age of Bride and Age of Groom, Massachusetts Occurrence: 1991	141
Table E-5	Number of Marriages for Bride by Number of Marriages for Groom, Massachusetts Occurrence: 1991	141

SECTION F--POPULATION

Figure F-1	Massachusetts Population: 1900-1991	147
Table F-1	Population by Race, Age and Sex, Massachusetts: 1990	148
Figure F-2	1990 Massachusetts Population by Age	150
Figure F-3	1990 Massachusetts Population by Race	150
Table F-2	Massachusetts Population by County: 1960-1990	151
Table F-3	Massachusetts Population by City and Town: 1980 and 1990	152
Table F-4	Population Counts and Estimates, Massachusetts: 1980-1991	155

APPENDICES

I Source Documents

Standard Certificate of Live Birth	163
Standard Certificate of Death	164
Report of Fetal Death	165
Certificate of Marriage	166
Certificate of Absolute Divorce or Annulment	167

II Registry of Vital Records and Statistics Staff 169

INTRODUCTION

The **ANNUAL REPORT OF VITAL STATISTICS** (Public Document No. 1) has been continuously published since 1842. This is the 28th edition produced by the Department of Public Health. This report, required under the provisions of Chapter 111, section 2, of the Massachusetts General Laws, tabulates data on Massachusetts births, fetal deaths, deaths, marriages, divorces, and population for calendar year 1991. Approximately 2,000 copies of the report are distributed to federal, state, and local governmental agencies, private and public health planners and researchers, students, and members of the general public. The report provides its users with an overview of the health status of the Massachusetts population.

Vital statistics data may be tabulated either in terms of resident data or occurrence data. Resident data include all events which occur to residents of the Commonwealth, wherever the events occur. Occurrence data include all those events which occur within the state, including those which occur to out-of-state residents. There is an interstate exchange of copies of birth, death and fetal death records among the fifty states, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, and all Canadian provinces. These records are exchanged for statistical purposes only, for events which occur in states other than where the individual resides. This exchange allows each of the states and provinces to track the births and deaths of their residents. The majority of the data presented in this report for births and deaths is based on resident data. Marriage and divorce data, however, only reflect events which occurred within the Commonwealth.

REGISTRATION

The first government-operated system of vital events registration anywhere in the world began in the Commonwealth of Massachusetts in 1639 under colonial administration. Prior to that time, in countries such as England with a vital registration system, the responsibility for the registration of vital events had been placed on church officials. The Massachusetts system mandated the registration of vital events by the clerks of the communities. In 1842, the Massachusetts legislature established the first statewide coordination for the registration of these events by requiring that copies of the events registered in the local cities and towns be sent to the Secretary of State. The first year of collection was designated for 1841. The collection of data and the production of the **ANNUAL REPORT OF VITAL STATISTICS** has continued since then. In 1976, the responsibility for the state coordination was transferred to the Department of Public Health. This was mandated in order to rejoin the statistical and registration functions which had been separated by the 1964 transfer of the statistical function to the Department of Public Health. With the exception of the administrative location of the State Registry, the actual mechanics of the system have changed remarkably little over the years.

With limited exceptions, most vital records in Massachusetts are open public records. The figure on the next page illustrates the registration process in Massachusetts. For open birth and death records, there is a triple registration process in Massachusetts. The event is first recorded in the city or town where the event occurred. The clerk of that community is then required to forward a certified copy of the record to both the community where the person resided at the time of the event and to the State Registry. Certified copies of the records may be issued from local or state records. If the record is a restricted record, such as those of out-of-wedlock births, the registration occurs only in the community where the event occurred and in the state office.

In addition to receiving a legal copy of each birth record from the city or town in which the birth occurred, the State Registry also receives a confidential copy of the birth record directly from the hospital or birth center where the birth occurred. This copy includes confidential medical information in addition to the legal information. It is this copy of the record which is processed to produce the statistical information on births contained in this report.

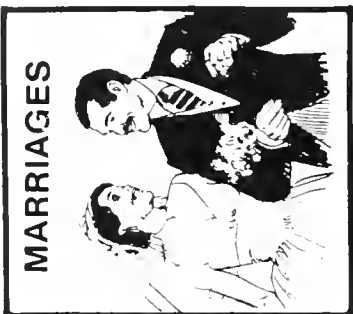
The Vital Records and Statistics Process

PROCESS

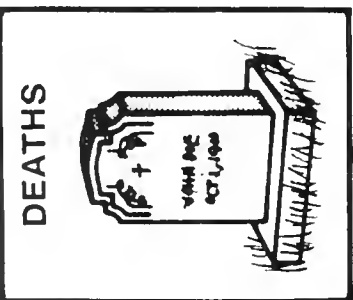
PRODUCT



BIRTHS



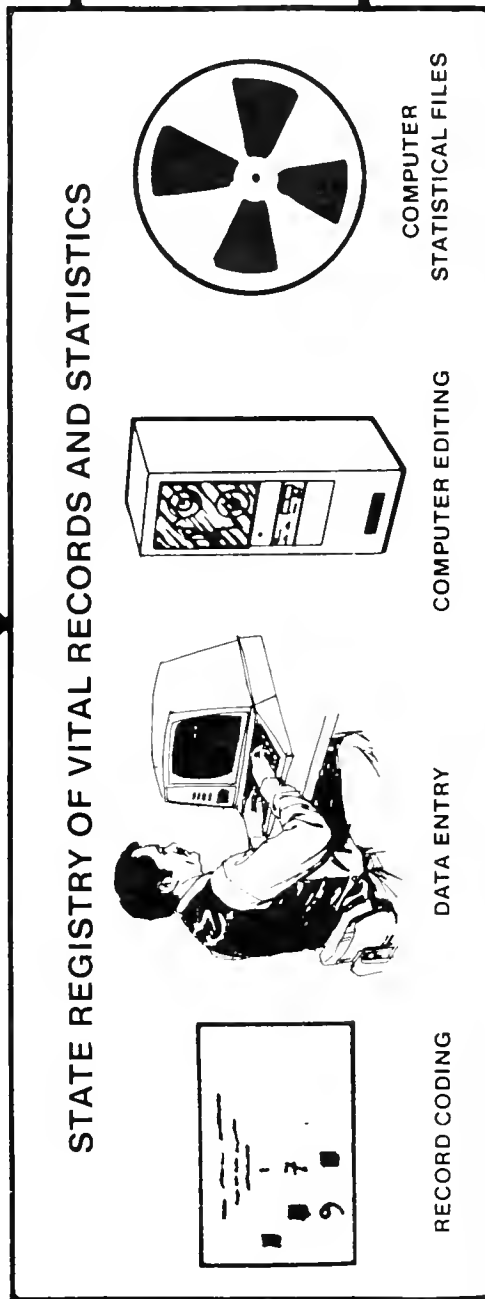
MARRIAGES



DEATHS



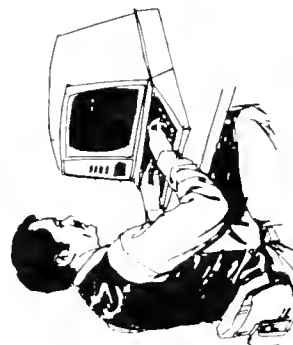
CITY AND TOWN CLERKS



STATE REGISTRY OF VITAL RECORDS AND STATISTICS



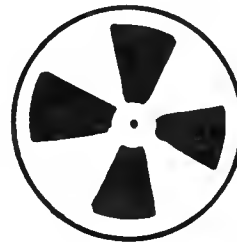
RECORD CODING



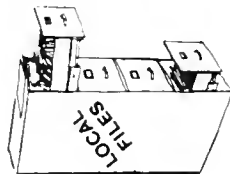
DATA ENTRY



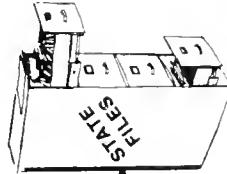
COMPUTER EDITING



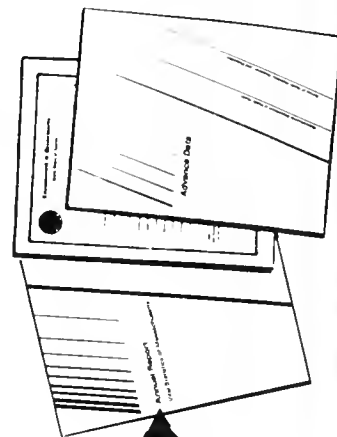
COMPUTER
STATISTICAL FILES



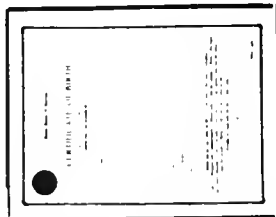
LOCAL
FILES



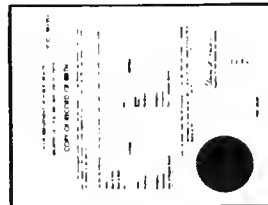
STATE
FILES



Advance Data



CERTIFICATE OF BIRTH



CERTIFICATE OF DEATH

Since 1986, the State Registry has developed a program of direct electronic transmission of birth records from hospitals. The system used in Massachusetts is called the Automated Vital Statistics System (AVSS). It was developed at the University of California, Santa Barbara. Almost 90 percent of all birth records are now received through this method. AVSS has contributed to reducing processing time at both the hospital and the State Registry, while the built-in edits of the system increase the quality of the data.

Anyone wishing to be married in the Commonwealth may receive a marriage license from any of the 351 cities or towns in the state, regardless of residence or where the marriage is to take place in the Commonwealth. The community issuing the license is required to send an attested copy of the marriage record to the State Registry.

The process for creating death certificates is the most complex of all vital records. Complete and accurate death records are dependent upon the following individuals: 1.) Certifier, who not only initiates the death registration process but also determines the cause of death as well as the place, time and date of death; 2.) Funeral Director, who plays the role of facilitator in the death registration process and adds the personal data concerning the decedent, which are supplied by an informant; 3.) Burial Agent, who both issues the permit that allows the chosen disposition to take place and serves as the initial acceptor of the death certificate for official registration; and, 4.) City or Town Clerk, who records the death certificate, issues certified copies of same and forwards a copy of the death record to the Registry of Vital Records and Statistics and other communities as required by law.

The Registry of Vital Records and Statistics receives directly from hospitals or physicians the fetal death reports for fetuses of either twenty or more weeks gestation or weighing at least 350 grams. There are no local filings of fetal death reports.

Abstracts of divorces granted are also sent directly to the State Registry from the Registers of Probate from each county probate court.

STATISTICAL PROCESSING AND TABULATING

The records received in the State Registry are carefully examined for legal errors and inconsistencies. As part of the computerization process, errors and inconsistencies are queried and corrected. A computerized hospital query program is part of the AVSS program. The Registry also has a data quality assurance program that includes on-site instruction for clerks and hospital personnel who have reporting difficulties, and training for all groups involved in the data collection process.

Annually, when registration is considered as complete as possible, statistics are aggregated for presentation in this report and in special studies, and for program monitoring and surveillance.

Anyone using statistical information for comparisons over time should be aware of inconsistencies and changing conventions for classification and coding. This is particularly important when using cause of death information. Codes used for classifying cause of death in this report are based on the Ninth Revision of the International Classification of Diseases, World Health Organization. Classification of variables such as race, nativity, and marital status may also differ over time.

It is hoped that this report will be useful to a wide range of health data users in the Commonwealth, as well as to educational planners, demographers, and historians. Questions concerning these data and requests for more detailed findings should be directed to:

Massachusetts Department of Public Health
Bureau of Health Statistics, Research and Evaluation
150 Tremont Street
Boston, Massachusetts 02111
(617) 727-DATA

VITAL EVENTS

SECTION A

VITAL EVENTS

HIGHLIGHTS

BIRTHS

- In 1991, there were 88,176 births to Massachusetts residents.
- Births decreased by 4.6% from 1990 to 1991.
- The 1991 Massachusetts birth rate per 1,000 residents was 14.6, a decrease of 5.2% from the birth rate of 15.4 in 1990.
- Massachusetts' 1991 birth rate of 14.6 per 1,000 residents was below the 1991 U.S. rate of 16.3.
- The most births occurred in May (9.1%--7,980); the fewest occurred in February (7.6%--6,712).

DEATHS

- In 1991, 53,010 Massachusetts residents died.
- The number of deaths remained almost constant from 1990 to 1991.
- The Massachusetts death rate of 8.8 deaths per 1,000 residents did not vary from 1990 to 1991. The U.S. death rate of 8.6 deaths per 1,000 residents also did not change from 1990 to 1991. The 1991 age-adjusted death rate in Massachusetts (461.5) was lower than the U.S. age-adjusted death rate (513.7).
- The most deaths occurred in January (9.4%--4,992); the fewest occurred in September (7.4%--3,897).

FETAL DEATHS

- There were 518 reportable fetal deaths to Massachusetts residents in 1991.
- Reportable fetal deaths decreased by 6.2% from 1990 to 1991. The fetal death rate also decreased from the 1990 rate of 5.9 per 1,000 live births and fetal deaths to a rate of 5.8 in 1991.

INFANT DEATHS

- In 1991, 576 infant deaths (less than 1 year of age) occurred to Massachusetts residents.
- The Massachusetts infant mortality rate decreased from 7.0 deaths per 1,000 live births in 1990 to 6.5 deaths per 1,000 live births in 1991.
- The black infant mortality rate increased slightly from 13.7 in 1990 to 13.8 in 1991.
- The Massachusetts 1991 infant mortality rate of 6.5 per 1,000 live births was 27.0% below the U.S. rate of 8.9.

MARRIAGES

- In 1991, there were 44,621 marriages in Massachusetts.
- The number of marriages in Massachusetts decreased by 6.6% from 1990 to 1991. Nationally, the number of marriages decreased by 3.1% during the same period.
- The 1991 Massachusetts rate of 7.4 marriages per 1,000 population was below the U.S. rate of 9.4.
- The most marriages occurred in June (13.7%--6,105); the fewest occurred in January (3.1%--1,378).

DIVORCES

- In 1991, 14,987 divorces were granted in Massachusetts.
- Divorces in Massachusetts decreased by 7.8% from 1990 to 1991.
- The 1991 Massachusetts divorce rate of 2.5 divorces per 1,000 population was below the U. S. rate of 4.7.
- The largest number of divorces was finalized in January (1,358--9.1%), and the fewest in November (1,070--7.1%).

NATURAL INCREASE

- The rate of natural increase in the Massachusetts resident population decreased to 5.8 per 1,000 residents in 1991 from a rate of 6.6 in 1990.
- The 1991 U.S. natural increase rate of 7.7 remains above that of Massachusetts.

The Vital Events section provides basic information on all vital events. In addition to the information highlighted above, this section contains summary birth and death data by city, town and county. More detailed information is contained in the sections on the individual events.

DEFINITIONS AND RATES IMPORTANT FOR THIS SECTION INCLUDE:

FETAL DEATH

A fetal death is a death prior to the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of the pregnancy; the death is indicated by the fact that after such separation the fetus does not breath or show any other evidence of life, such as the beating of the heart, pulsation of the umbilical cord, or definite movement of the voluntary muscles.

Massachusetts law requires that fetal deaths of 20 or more weeks gestation or weighing at least 350 grams be reported; therefore, the fetal deaths referred to in this report are of that gestational age or weight.

NATURAL INCREASE

The difference between the number of resident live births and the number of resident deaths.

OCCURRENCE

Occurrence data reflect where the event took place without regard to residence. In Massachusetts, place will be one of 351 cities or towns.

RESIDENCE

The usual place of residence as reported by the mother (for births) or the informant (for deaths). An infant's residence is considered that of the mother. While occurrence data include only events that occurred within Massachusetts, residence data for births and deaths include those which may or may not have occurred within Massachusetts.

CRUDE RATES OF VITAL EVENTS

BIRTH RATE	$\frac{\text{No. of Resident Live Births} \times 1,000}{\text{Total Resident Population}}$
FETAL MORTALITY RATE	$\frac{\text{No. of Resident Fetal Deaths}}{\text{Resident Live Births} + \text{Resident Fetal Deaths}} \times 1,000$
INFANT MORTALITY RATE	$\frac{\text{No. of Resident Deaths} < 1 \text{ Year} \times 1,000}{\text{Resident Live Births}}$
NEONATAL MORTALITY RATE	$\frac{\text{No. of Resident Deaths} < 28 \text{ Days} \times 1,000}{\text{Resident Live Births}}$
DEATH RATE	$\frac{\text{No. of Resident Deaths}}{\text{Total Resident Population}} \times 1,000$
MARRIAGE RATE	$\frac{\text{No. of Occurrence Marriages} \times 1,000}{\text{Total Resident Population}}$
DIVORCE RATE	$\frac{\text{No. of Occurrence Divorces} \times 1,000}{\text{Total Resident Population}}$

**TABLE A-1
SELECTED FACTS IN VITAL STATISTICS
MASSACHUSETTS: 1991**

BIRTH

Ages of Mothers: 12 - 49 years

Ages of Fathers: 13 - 74 years

Sets of Twins: 1,143

Sets of Triplets: 27

Sets of Quadruplets: 2

Most Births Occurred on: May 23, 1991 (324 births)

Fewest Births Occurred on: November 24, 1991 (159 births)

Highest # of Births at: Brigham and Women's Hospital (9,453 births)

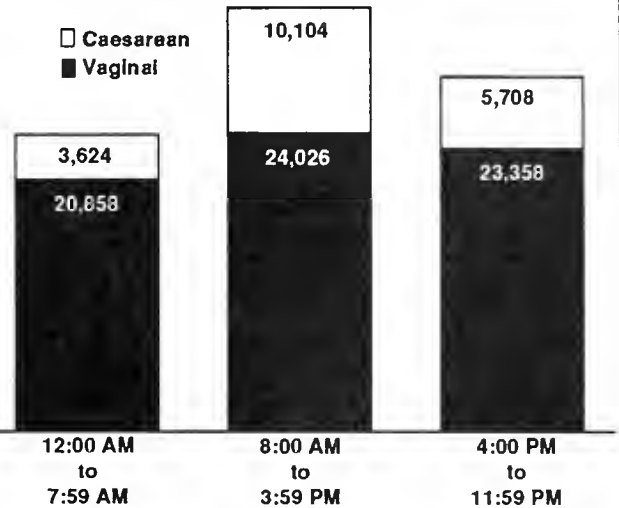
Lowest # of Births at: Nantucket Cottage Hospital (100 births)

Ten Most Popular Names For Babies

<i>Boys' Names</i>	<i>Number</i>	<i>Girls' Names</i>	<i>Number</i>
Michael	1,916	Ashley	875
Matthew	1,359	Jessica	875
Christopher	1,281	Amanda	815
Nicholas	995	Samantha	714
Daniel	936	Sarah	704
Joseph	875	Stephanie	636
Ryan	874	Nicole	603
John	869	Emily	601
Andrew	849	Jennifer	548
James	784	Elizabeth	532

**Number of Births Occurring at Specified Times
of Day when Delivery Method Is Known***

□ Cesarean
■ Vaginal



* Unknown delivery methods = 237
Unknown times of birth = 261

DEATH

Male Decedents 100 Years and Older: 74

Female Decedents 100 Years and Older: 370

Most Deaths Occurred on: January 12, 1991 (202 deaths)

Fewest Deaths Occurred on: September 20, 1991 (107 deaths)

Month Most Suicides Occurred: April and November (55 each)

Month Most Homicides Occurred: July (29)

Month Most Motor Vehicle Deaths Occurred: August (66)

Weekday Most Deaths Occurred: Saturday (7,711 deaths)

Weekday Fewest Deaths Occurred: Thursday (7,424 deaths)

MARRIAGE

Ages of Brides: 13 - 86 years

Ages of Grooms: 16 - 87 years

Most Popular Month for Marriages: June (6,105 marriages)

Least Popular Month for Marriages: January (1,378 marriages)

Greatest Age Difference When Bride Older than Groom: 45 years

Greatest Age Difference When Groom Older than Bride: 38 years

DIVORCE

Length of Marriages Involved in Divorces:
<1 Year to 58 Years of Marriage

Most Common Length of Marriage Prior to Divorce: 5 Years

Month Most Divorces Granted: January (1,358 divorces)

Month Fewest Divorces Granted: November (1,070 divorces)

FIGURE A-1

1991 MASSACHUSETTS DAILY VITAL EVENTS

Each day Massachusetts residents had approximately:

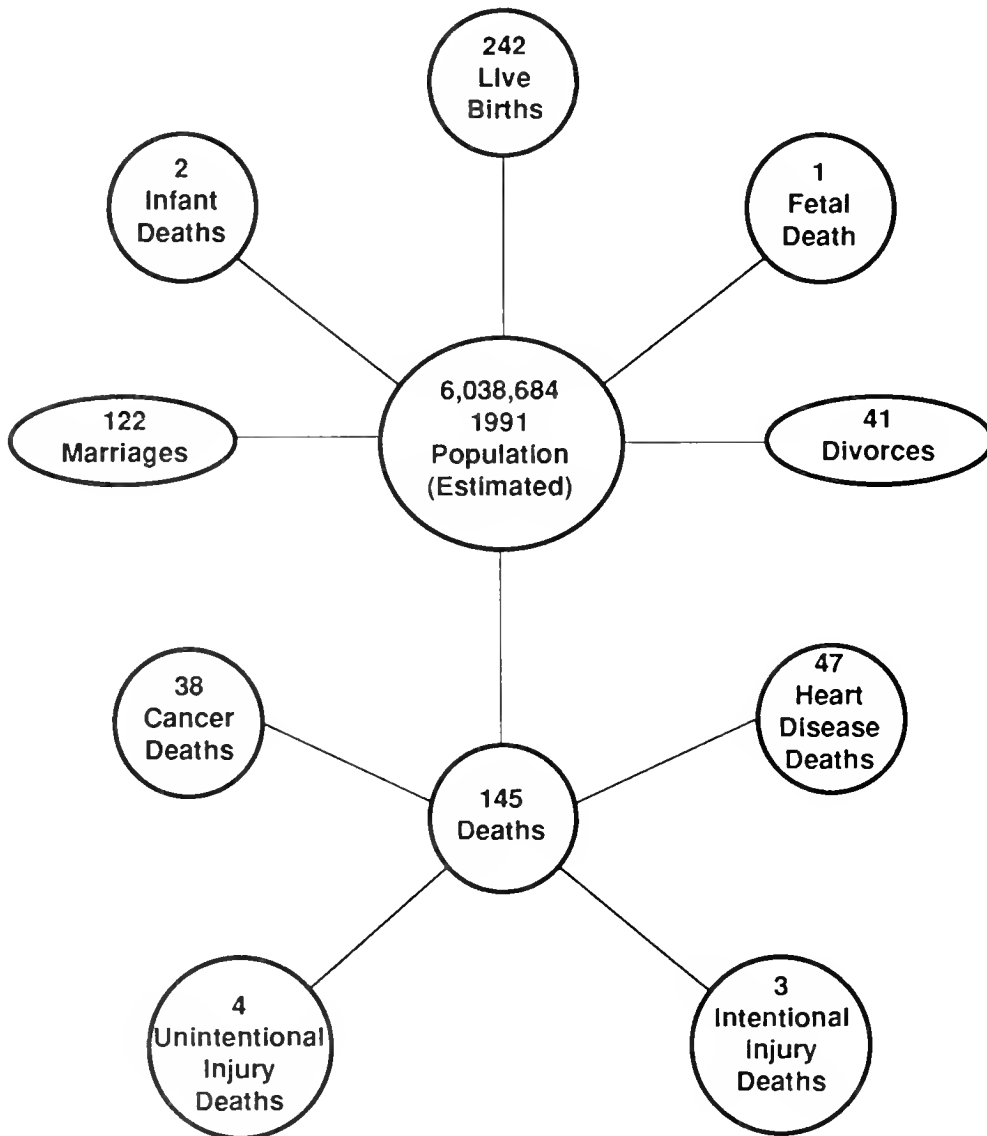


TABLE A-2
NUMBER AND CRUDE RATES OF VITAL EVENTS
MASSACHUSETTS AND UNITED STATES
1990-1991

VITAL EVENT	MASSACHUSETTS					UNITED STATES				
	1991		1990		% of Rate Change	1991 ¹		1990 ²		% of Rate Change
	Number	Rate	Number	Rate		Number	Rate	Number	Rate	
BIRTHS	88,176	14.6	92,461	15.4	- 5.2	4,110,907	16.3	4,158,212	16.7	- 2.4
FETAL DEATHS	518	5.8	552	5.9	- 1.7	NA ³	NA	NA	NA	NA
TOTAL DEATHS	53,010	8.8	53,008	8.8	0.0	2,169,518	8.6	2,148,463	8.6	0.0
Infant Deaths	576	6.5	649	7.0	- 7.1	36,766	8.9	38,351	9.2	- 3.3
Neonatal Deaths	400	4.5	446	4.8	- 6.2	22,978	5.6	24,309	5.8	- 3.4
MARRIAGES	44,621	7.4	47,786	7.9	- 6.3	2,371,000	9.4	2,448,000	9.8	- 4.1
DIVORCES	14,987	2.5	16,258	2.7	- 7.4	1,187,000	4.7	1,175,000	4.7	0.0

NOTES:

Neonatal and infant deaths are included in total deaths; neonatal deaths are included in infant deaths; fetal deaths are excluded from total deaths.
 Figures for marriages and divorces reflect occurrence, not residence.
 The rates for live births, total deaths, marriages and divorces are per 1,000 population.
 Rates for infant and neonatal deaths are per 1,000 live births.
 Rates for fetal deaths are per 1,000 live births and fetal deaths.

¹ United States numbers and rates for 1991 are provisional for Marriages and Divorces; all others are final.

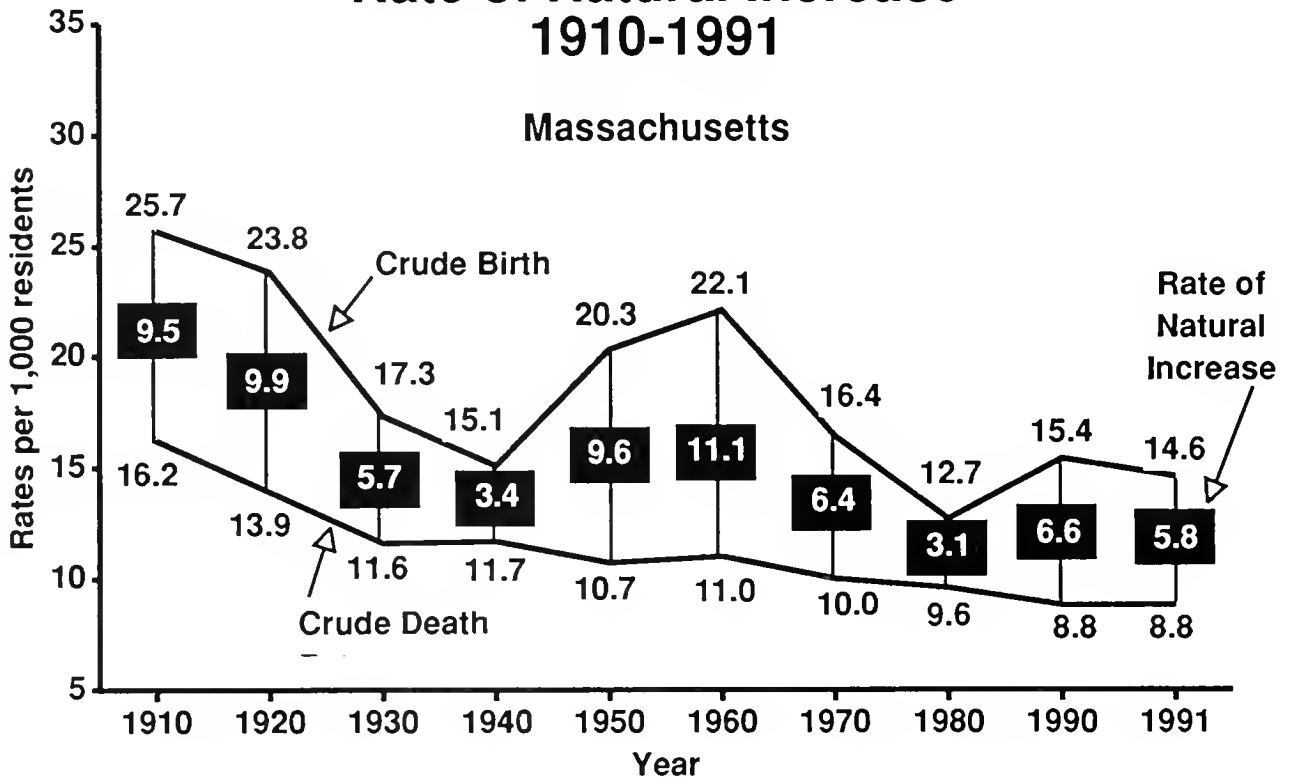
² United States numbers and rates for 1990 are provisional for Marriages and Divorces; all others are final.

³ Not Available

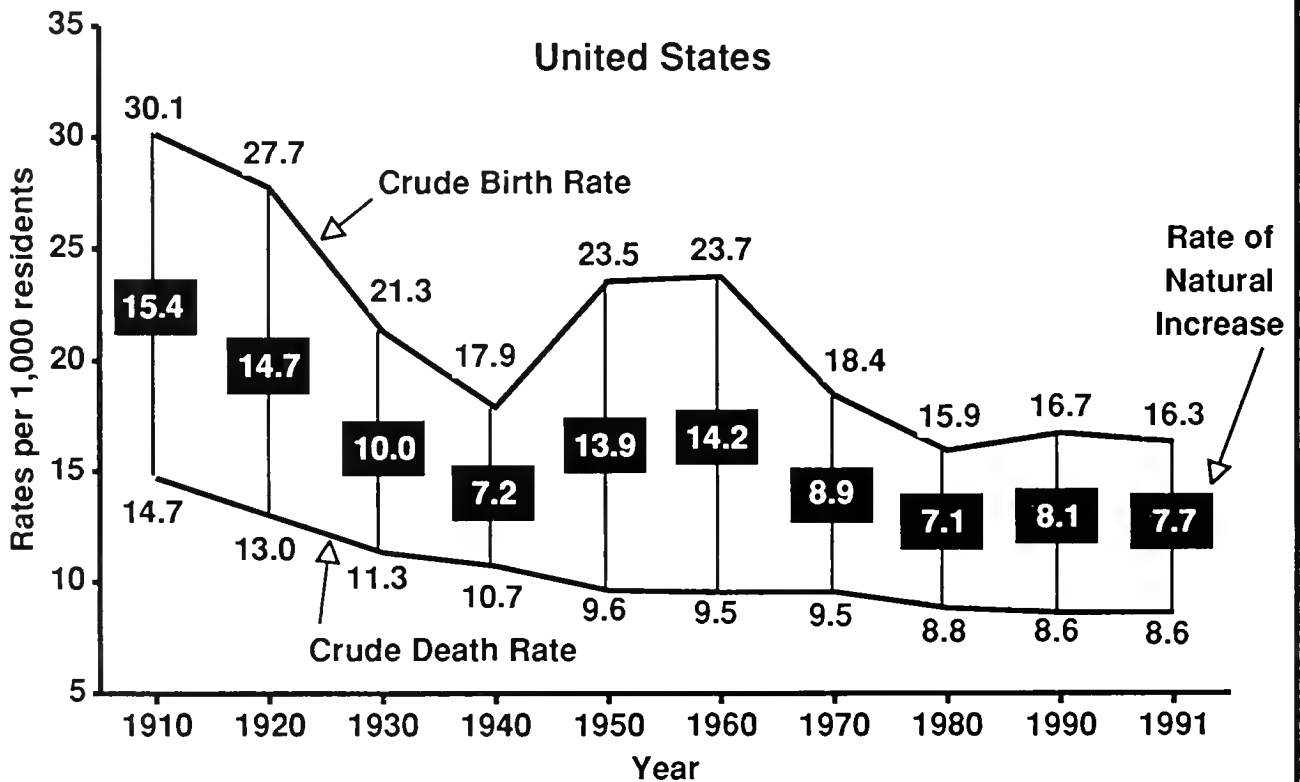
Figure A-2

Rate of Natural Increase 1910-1991

Massachusetts



United States



**TABLE A-3
MASSACHUSETTS RESIDENT BIRTHS AND DEATHS
WITH RESULTANT NATURAL INCREASE
1900-1991**

YEAR	BIRTHS	DEATHS	NATURAL INCREASE	RATE/ 1,000 RESIDENTS
1900	73,386	51,156	22,230	7.9
1905	75,022	50,486	24,536	8.2
1910	86,539	54,407	32,132	9.5
1915	93,155	53,131	40,024	10.8
1920	91,859	53,632	38,227	9.9
1925	86,014	51,890	34,124	8.2
1930	73,690	49,503	24,187	5.7
1935	62,416	49,634	12,782	2.9
1940	65,369	50,698	14,671	3.4
1945	76,455	50,763	25,692	5.7
1950	95,619	50,359	45,260	9.6
1955	109,610	53,386	56,224	11.6
1960	114,018	56,560	57,458	11.2
1965	100,262	58,853	41,409	7.8
1970	93,582	56,944	36,638	6.4
1975	68,070	53,708	14,362	2.5
1980	72,591	54,934	17,657	3.1
1981	73,930	52,813	21,117	3.7
1982	75,749	52,867	22,882	4.0
1983	76,031	54,150	21,881	3.8
1984	78,197	55,189	23,008	4.0
1985	81,781	55,597	26,184	4.5
1986	82,168	55,860	26,308	4.5
1987	84,345	55,562	28,783	4.9
1988	88,047	56,407	31,640	5.4
1989	91,314	53,748	37,566	6.4
1990	92,461	53,008	39,453	6.6
1991	88,176	53,010	35,166	5.8

**TABLE A-4
VITAL EVENTS BY MONTH
MASSACHUSETTS RESIDENTS
1991**

TOTALS		BIRTHS	FETAL DEATHS ¹	DEATHS	Infant Deaths ²	Neonatal Deaths ²	MARRIAGES	DIVORCES
		88,178	518	53,010	578	400	44,621	14,987
JANUARY	#	7,051	49	4,992	47	34	1,378	1,358
	Rank	9	2	1	5	4	12	1
FEBRUARY	#	6,712	38	4,483	44	32	1,917	1,277
	Rank	12	7	4	7	5	11	6
MARCH	#	7,758	42	4,716	49	30	1,978	1,329
	Rank	3	6	3	4	7	10	3
APRIL	#	7,512	45	4,322	53	37	3,193	1,298
	Rank	5	5	7	2	2	8	4
MAY	#	7,980	47	4,222	42	30	4,591	1,160
	Rank	1	4	10	8	7	5	9
JUNE	#	7,342	35	4,168	59	41	6,105	1,087
	Rank	6	8	11	1	1	1	10
JULY	#	7,828	45	4,319	48	34	3,437	1,297
	Rank	2	5	8	6	4	6	5
AUGUST	#	7,653	47	4,261	42	31	5,129	1,231
	Rank	4	4	9	8	6	4	8
SEPTEMBER	#	7,315	34	3,897	49	31	5,998	1,297
	Rank	7	9	12	4	8	2	5
OCTOBER	#	7,279	48	4,383	49	36	5,383	1,339
	Rank	8	3	5	4	3	3	2
NOVEMBER	#	6,778	50	4,328	52	36	3,288	1,070
	Rank	11	1	6	3	3	7	11
DECEMBER	#	6,970	38	4,919	44	28	2,224	1,244
	Rank	10	7	2	7	8	9	7

¹ Fetal deaths are not included in BIRTHS or DEATHS.

² Infant deaths and neonatal deaths are included in total resident deaths; neonatal deaths are included in infant deaths.

TABLE A-4A
VITAL EVENTS BY COMMUNITY
1991

COMMUNITY	POPULATION (1)	LIVE BIRTHS OCCURRENCE: RESIDENT :	DEATHS OCCURRENCE: RESIDENT :	INFANT DEATHS TOTAL : NEONATAL (2)	MARRIAGES LICENSES: OCCURRENCE ISSUED : (3) : (4)	RESIDENT NATURAL INCREASE
STATE TOTAL	6,038,684	89,610 : 88,176	53,688 : 53,010	576 : 400	44,621 : 44,621	35,166
ABINGTON	13,796	0	46	0	95	108
ACTION	17,998	3	68	2	126	139
ACUSHNET	9,565	0	19	1	31	19
ADAMS	9,446	0	28	0	60	-10
AGAWAM	27,462	1	172	2	219	112
ALFORD	4,423	0	4	0	0	1
AMESBURY	15,115	0	164	0	106	101
AMHERST	35,040	4	50	2	144	132
ANDOVER	29,123	0	85	1	203	102
ARLINGTON	44,421	4	374	3	307	156
ASHBURNHAM	5,549	0	8	1	21	30
ASHBY	2,844	0	3	0	4	24
ASHFIELD	1,745	0	3	0	11	12
ASHLAND	12,284	1	19	2	81	156
ATHOL	11,499	2	139	2	89	11
ATTLEBORO	38,224	891	401	3	327	366
AUBURN	14,981	1	26	4	133	47
AVON	4,607	0	10	0	49	27
AYER	6,877	2	192	1	179	235
BARNSTABLE	41,693	1,250	880	2	388	80
BARRE	4,650	0	16	0	26	25
BECKET	1,589	0	3	0	11	9
BEDFORD	13,048	0	179	2	111	101
BELCHERTOWN	10,876	0	16	2	70	104
BELLINGHAM	15,030	1	19	1	55	178
BELMONT	24,648	1	79	3	98	16
BERKLEY	4,331	0	4	3	275	16
BERLIN	2,304	0	3	1	15	59
BERNARDSTON	2,059	0	19	0	19	13
BEVERLY	38,148	2,395	646	5	322	130
BILLERICA	38,002	1	49	3	212	336
BLACKSTONE	8,123	0	10	0	42	115

(1) POPULATION DATA ARE INTERPOLATIONS OF THE 1990 U.S. CENSUS AND MISER 1995 ESTIMATES

(2) INFANT AND NEONATAL DEATHS ARE INCLUDED IN TOTAL RESIDENT DEATHS.

(3) MARRIAGE INTENTIONS MAY BE FILED IN ANY MASSACHUSETTS COMMUNITY, REGARDLESS OF WHERE THE BRIDE AND GROOM RESIDE OR WHERE THE MARRIAGE CEREMONY OCCURS.

(4) MARRIAGE FIGURES REFLECT OCCURRENCE, NOT RESIDENCE.

TABLE A-4A
VITAL EVENTS BY COMMUNITY
1991

COMMUNITY	POPULATION (1)	LIVE BIRTHS OCCURRENCE: RESIDENT	DEATHS OCCURRENCE: RESIDENT	INFANT DEATHS TOTAL : NEONATAL (2)	MARRIAGES LICENSES: OCCURRENCE ISSUED: (3) ; (4)	RESIDENT NATURAL INCREASE
STATE TOTAL	6,038,684	89,610 ; 88,176	53,688 ; 53,010	576 ; 400	44,621 ; 44,621	35,166
BLANDFORD	1,221	0	0	0	1	0
BOLTON	3,183	0	5	0	27	17
BOSTON	578,225	20,385	8,895	81	3,795	4,627
BOURNE	16,438	0	111	1	106	96
BOXBOROUGH	3,394	0	4	0	17	41
BOXFORD	6,423	1	2	0	17	38
BOYLSTON	3,544	0	108	0	17	27
BRAINTREE	34,066	2	315	0	303	57
BREWSTER	8,769	1	99	0	81	-7
BRIDGEWATER	21,228	1	35	4	111	148
BRIMFIELD	3,079	2	6	0	16	26
BROCKTON	92,097	1,400	1,275	22	607	927
BROOKFIELD	3,009	1	31	0	19	12
BROOKLINE	54,309	6	205	1	499	130
BUCKLAND	1,962	1	5	0	19	-2
BURLINGTON	23,337	0	432	2	253	175
CAMBRIDGE	95,465	2,634	1,168	3	949	473
CANTON	18,719	2	68	3	138	65
CARLISLE	4,443	0	4	0	19	25
CARVER	11,090	0	23	1	41	75
CHARLEMONT	1,279	0	0	0	9	10
CHARLTON	9,711	2	37	4	37	102
CHATHAM	6,679	0	71	0	75	-52
CHELMSFORD	32,646	2	103	4	240	208
CHELSEA	28,285	3	109	4	253	359
CHESHIRE	3,527	0	9	6	18	15
CHESTER	1,292	0	3	1	5	12
CHESTERFIELD	1,141	2	4	0	3	10
CHICOPEE	56,804	3	176	7	445	134
CHILMARK	663	0	3	0	21	1
CLARKSBURG	1,758	0	0	0	9	7
CLINTON	13,153	0	105	2	103	122

(1) POPULATION DATA ARE INTERPOLATIONS OF THE 1990 U.S. CENSUS AND MISER 1995 ESTIMATES

(2) INFANT AND NEONATAL DEATHS ARE INCLUDED IN TOTAL RESIDENT DEATHS.

(3) MARRIAGE INTENTIONS MAY BE FILED IN ANY MASSACHUSETTS COMMUNITY, REGARDLESS OF WHERE THE BRIDE AND GROOM RESIDE OR WHERE THE MARRIAGE CEREMONY OCCURS.

(4) MARRIAGE FIGURES REFLECT OCCURRENCE, NOT RESIDENCE.

TABLE A-4A
VITAL EVENTS BY COMMUNITY
1991

COMMUNITY	POPULATION (1)	LIVE BIRTHS		DEATHS		INFANT DEATHS		MARRIAGES		RESIDENT NATURAL INCREASE
		OCCURRENCE :	RESIDENT :	OCCURRENCE :	RESIDENT :	TOTAL :	NEONATAL :	LICENSES : OCCURRENCE	ISSUED : (4)	
STATE TOTAL	6,038,684	89,610	88,176	53,688	53,010	576	400	44,621	44,621	35,166
COHASSET	7,207	0	88	43	68	0	0	72	111	20
COLRAIN	1,773	0	23	3	19	0	0	15	14	4
CONCORD	17,249	1,688	175	298	141	1	1	138	155	34
CONWAY	1,562	0	18	3	9	0	0	8	8	9
CUMMINGTON	7,825	0	10	2	8	0	0	1	3	2
DALTON	7,092	0	78	30	65	0	0	40	53	13
DANVERS	24,291	0	269	162	256	1	1	208	316	13
DARTMOUTH	27,340	0	253	90	232	3	3	142	163	21
DEDHAM	23,835	1	282	77	234	1	0	352	229	48
DEERFIELD	5,049	0	60	22	41	0	0	30	50	19
DENNIS	14,171	0	152	111	222	0	0	102	88	-70
DIGHTON	5,673	0	63	13	37	0	0	30	31	26
DOUGLAS	5,493	1	89	5	31	1	1	32	19	58
DOVER	4,984	0	64	8	20	0	0	36	33	44
DRACUT	26,090	0	423	36	164	0	0	153	143	259
DUDLEY	9,566	1	106	20	93	1	1	78	74	13
DUNSTABLE	2,299	0	17	1	10	0	0	11	9	7
DUXBURY	14,081	0	143	54	92	1	0	93	126	51
EAST BRIDGEWATER	11,093	0	172	40	76	0	0	67	103	96
EAST BROOKFIELD	2,024	0	33	1	11	0	0	16	27	22
EAST LONGMEADOW	13,387	0	137	76	142	2	1	97	80	-5
EASTHAM	4,626	1	43	16	53	0	0	29	30	-10
EASTHAMPTON	15,681	0	227	30	126	1	1	132	119	101
EASTON	19,936	1	284	31	105	2	1	140	175	179
EDGARTOWN	3,164	0	45	10	30	0	0	69	130	15
EGREMONT	1,261	0	11	4	9	0	0	4	6	2
ERVING	1,405	0	18	1	10	0	0	2	4	8
ESSEX	3,252	1	40	3	23	0	0	14	19	17
EVERETT	35,573	2	581	429	387	4	4	311	242	194
FAIRHAVEN	16,098	0	174	111	209	0	0	100	126	-35
FALL RIVER	92,041	1,944	1,430	1,336	1,019	8	6	719	634	411
FALMOUTH	28,316	592	365	440	309	0	0	264	361	56

(1) POPULATION DATA ARE INTERPOLATIONS OF THE 1990 U.S. CENSUS AND MISER 1995 ESTIMATES

(2) INFANT AND NEONATAL DEATHS ARE INCLUDED IN TOTAL RESIDENT DEATHS.

(3) MARRIAGE INTENTIONS MAY BE FILED IN ANY MASSACHUSETTS COMMUNITY, REGARDLESS OF WHERE THE BRIDE AND GROOM RESIDE OR WHERE THE MARRIAGE CEREMONY OCCURS.

(4) MARRIAGE FIGURES REFLECT OCCURRENCE, NOT RESIDENCE.

TABLE A-4A
VITAL EVENTS BY COMMUNITY
1991

COMMUNITY	POPULATION (1)	LIVE BIRTHS		DEATHS		INFANT DEATHS		MARRIAGES		RESIDENT NATURAL INCREASE
		OCCURRENCE :	RESIDENT :	OCCURRENCE :	RESIDENT :	TOTAL :	NEONATAL (2)	LICENSES : ISSUED : (3) :	OCCURRENCE (4)	
STATE TOTAL	6,038,684	89,610	88,176	53,688	53,010	576	400	44,621	44,621	35,166
FITCHBURG	40,991	949	675	456	416	5	2	294	263	259
FLORIDA	748	0	4	0	5	0	0	3	3	-1
FOXBOROUGH	14,859	1	209	32	97	0	0	116	113	112
FRAMINGHAM	65,391	2,132	951	680	541	8	5	499	400	410
FRANKLIN	22,431	1	407	39	134	3	3	161	137	273
FREETOWN	8,632	0	81	7	26	1	1	54	156	55
GARDNER	20,123	374	312	261	209	3	2	174	183	103
GAY HEAD	206	0	3	0	0	0	0	4	11	3
GEORGETOWN	6,455	1	78	12	43	0	0	44	44	35
GILL	1,587	0	19	4	15	0	0	5	12	4
GLOUCESTER	28,971	249	379	259	272	2	2	230	294	107
GOSHEN	877	1	19	2	4	0	0	2	16	15
GOSNOLD	92	0	3	1	0	0	0	2	5	3
GRAFTON	13,054	0	196	26	99	0	0	79	75	97
GRANBY	5,638	1	68	14	42	0	0	42	45	26
GRANVILLE	1,447	0	18	1	6	0	0	6	9	12
GREAT BARRINGTON	7,677	175	92	220	109	0	0	105	69	-17
GREENFIELD	18,587	792	216	438	222	3	1	164	120	-6
GROTON	7,703	0	110	9	31	0	0	53	103	79
GROVELAND	5,239	1	63	6	30	1	1	14	26	33
HADLEY	4,220	0	48	16	46	1	1	30	35	2
HALIFAX	6,600	1	109	6	53	1	1	35	28	56
HAMILTON	7,334	0	100	11	40	2	2	42	66	60
HAMPDEN	4,777	0	55	26	43	2	2	20	27	12
HANCOCK	626	0	7	1	4	0	0	3	4	3
HANOVER	11,904	0	126	20	80	0	0	81	76	46
HANSON	9,094	1	155	36	61	3	2	40	71	94
HARDWICK	2,431	1	36	8	23	1	1	20	15	13
HARVARD	12,500	0	42	15	19	2	2	34	45	23
HARWICH	10,482	0	102	90	152	0	0	60	99	-50
HATFIELD	3,214	0	41	7	39	1	0	9	8	2
HAVERHILL	51,743	820	1,034	489	479	3	3	344	358	555

(1) POPULATION DATA ARE INTERPOLATIONS OF THE 1990 U.S. CENSUS AND MISER 1995 ESTIMATES

(2) INFANT AND NEONATAL DEATHS ARE INCLUDED IN TOTAL RESIDENT DEATHS.

(3) MARRIAGE INTENTIONS MAY BE FILED IN ANY MASSACHUSETTS COMMUNITY, REGARDLESS OF WHERE THE BRIDE AND GROOM RESIDE OR WHERE THE MARRIAGE CEREMONY OCCURS.

(4) MARRIAGE FIGURES REFLECT OCCURRENCE, NOT RESIDENCE.

TABLE A-4A
VITAL EVENTS BY COMMUNITY
1991

COMMUNITY	POPULATION (1)	LIVE BIRTHS		DEATHS		INFANT DEATHS		MARRIAGES		RESIDENT NATURAL INCREASE
		OCCURRENCE :	RESIDENT :	OCCURRENCE :	RESIDENT :	TOTAL :	NEONATAL :	LICENSES : OCCURRENCE		
STATE TOTAL	6,038,684	89,610	88,176	53,688	53,010	576	400	44,621	44,621	35,166
HAWLEY	331	0	3	0	1	0	0	2	5	2
HEATH	713	0	14	0	2	0	0	4	11	12
HINGHAM	19,748	0	239	78	146	1	0	161	247	93
HINSDALE	1,982	0	22	18	31	0	0	6	6	-9
HOLBROOK	11,177	1	140	26	92	1	1	78	62	48
HOLDEN	14,628	0	162	59	132	1	1	89	74	30
HOLLAND	2,254	1	41	5	11	0	0	6	6	30
HOLLISTON	13,103	0	178	16	64	0	0	74	104	114
HOLYOKE	43,084	1,459	886	881	573	7	4	313	282	313
HOPEDALE	5,595	0	90	33	49	1	1	18	29	41
HOPKINTON	9,447	1	144	16	48	0	0	66	51	96
HUBBARDSTON	2,814	0	62	2	11	0	0	14	10	51
HUDSON	17,512	0	248	29	128	0	2	123	89	120
HULL	10,364	1	176	20	81	2	1	82	49	95
HUNTINGTON	2,009	0	34	0	9	1	0	14	19	25
IPSWICH	12,010	0	164	56	113	1	1	70	121	51
KINGSTON	9,100	0	143	16	66	0	0	63	59	77
LAKEVILLE	7,974	3	104	39	53	0	0	42	46	51
LANCASTER	6,657	0	78	26	49	0	0	28	45	29
LANESBOROUGH	3,094	0	27	4	27	0	0	7	14	0
LAWRENCE	69,006	1,847	1,626	636	577	10	5	472	499	1,049
LEE	5,863	2	74	50	70	2	2	42	45	4
LEICESTER	10,233	1	133	17	61	0	0	53	75	72
LENEX	5,083	2	58	81	82	0	0	51	112	-24
LEOMINSTER	38,228	1,416	730	356	350	6	3	353	314	380
LEVERETT	1,806	0	20	3	9	0	0	12	19	11
LEXINGTON	29,054	2	260	192	247	0	0	195	236	13
LEYDEN	692	0	7	0	6	0	0	4	5	1
LINCOLN	7,776	1	37	7	35	0	0	38	71	2
LITTLETON	7,155	0	102	26	56	3	3	53	52	46
LONGMEADOW	15,503	1	137	63	148	1	1	98	88	-11
LOWELL	102,951	3,011	2,043	1,266	966	19	13	675	625	1,077

(1) POPULATION DATA ARE INTERPOLATIONS OF THE 1990 U.S. CENSUS AND MISER 1995 ESTIMATES

(2) INFANT AND NEONATAL DEATHS ARE INCLUDED IN TOTAL RESIDENT DEATHS.

(3) MARRIAGE INTENTIONS MAY BE FILED IN ANY MASSACHUSETTS COMMUNITY, REGARDLESS OF WHERE THE BRIDE AND GROOM RESIDE OR WHERE THE MARRIAGE CEREMONY OCCURS.

(4) MARRIAGE FIGURES REFLECT OCCURRENCE, NOT RESIDENCE.

TABLE A-4A
VITAL EVENTS BY COMMUNITY
1991

COMMUNITY	POPULATION (1)	LIVE BIRTHS : OCCURRENCE : RESIDENT	DEATHS : OCCURRENCE : RESIDENT	INFANT DEATHS : TOTAL : NEONATAL (2)	MARRIAGES : LICENSES : OCCURRENCE ISSUED : (3) : (4)	RESIDENT : NATURAL INCREASE
STATE TOTAL	6,038,684	89,610 : 88,176	53,688 : 53,010	576 : 400	44,621 : 44,621	35,166
LUDLOW	18,970	0	121	2	141	60
LUNENBURG	9,161	0	14	1	52	35
LYNN	80,633	10	779	11	570	654
LYNNFIELD	11,293	0	13	0	87	37
MALDEN	53,814	1,822	413	5	357	299
MANCHESTER	5,322	0	19	0	41	12
MANSFIELD	16,666	1	10	1	140	313
MARBLEHEAD	19,934	0	67	1	194	57
MARION	4,517	0	42	0	31	2
MARLBOROUGH	32,157	0	335	3	334	383
MARSHFIELD	21,716	1	42	0	151	184
MASHPEE	8,261	1	33	3	59	122
MATTAPOISETT	5,904	1	19	0	55	15
MAYNARD	10,433	1	21	1	73	138
MEDFIELD	10,687	1	20	0	51	102
MEDFORD	57,172	2	391	3	410	96
MEDWAY	10,101	0	37	1	56	125
MELROSE	28,123	1,149	455	1	197	70
MENDON	4,070	1	7	0	23	16
MERRIMAC	5,233	0	10	0	24	36
METHUEN	40,342	1,033	623	3	268	272
MIDDLEBOROUGH	17,958	2	87	0	125	140
MIDDLEFIELD	422	0	0	0	0	5
MIDDLETON	5,051	0	7	0	1	28
MILFORD	25,379	466	335	1	26	203
MILLBURY	12,215	0	46	3	223	60
MILLIS	7,725	0	4	1	101	101
MILLVILLE	2,289	0	2	0	47	35
MILTON	25,807	1	325	2	16	9
MONROE	113	0	0	0	169	1
MONSON	7,861	1	16	1	0	28
MONTAGUE	8,311	1	28	2	50	34
			106		45	

(1) POPULATION DATA ARE INTERPOLATIONS OF THE 1990 U.S. CENSUS AND MISER 1995 ESTIMATES

(2) INFANT AND NEONATAL DEATHS ARE INCLUDED IN TOTAL RESIDENT DEATHS.

(3) MARRIAGE INTENTIONS MAY BE FILED IN ANY MASSACHUSETTS COMMUNITY, REGARDLESS OF WHERE THE BRIDE AND GROOM RESIDE OR WHERE THE MARRIAGE CEREMONY OCCURS.

(4) MARRIAGE FIGURES REFLECT OCCURRENCE, NOT RESIDENCE.

TABLE A-4A
VITAL EVENTS BY COMMUNITY
1991

COMMUNITY	POPULATION (1)	LIVE BIRTHS		DEATHS		INFANT DEATHS		MARRIAGES		RESIDENT NATURAL INCREASE
		OCCURRENCE :	RESIDENT	OCCURRENCE :	RESIDENT	TOTAL :	NEONATAL	LICENSES : OCCURRENCE		
						(2)	(2)	ISSUED :	(4)	
								(3)		
STATE TOTAL	6,038,684	89,610	88,176	53,688	53,010	576	400	44,621	44,621	35,166
MONTEREY	870	0	14	0	9	0	0	5	4	5
MONTGOMERY	772	0	8	0	3	0	0	3	2	5
MOUNT WASHINGTON	134	0	0	0	1	0	0	1	3	-1
NAHANT	3,846	0	45	16	36	1	0	36	63	9
NANTUCKET	6,240	100	108	57	56	1	1	163	237	52
NATICK	30,696	878	453	290	257	1	1	220	165	196
NEEDHAM	27,704	0	326	248	250	0	0	188	162	76
NEW ASHFORD	188	0	2	0	1	0	0	0	3	1
NEW BEDFORD	99,191	1,934	1,499	1,288	1,122	8	5	702	674	377
NEW BRAINTREE	878	0	11	2	3	0	0	10	6	8
NEW MARLBOROUGH	1,295	0	13	2	15	0	0	3	13	-2
NEW SALEM	848	0	6	5	5	0	0	0	4	1
NEWBURY	5,747	1	86	12	48	0	0	42	35	38
NEWBURYPORT	16,488	883	210	252	161	1	1	165	160	49
NEWTON	82,752	3,579	872	604	658	1	1	676	642	214
NORFOLK	9,497	0	122	99	28	1	0	72	52	94
NORTH ADAMS	16,703	446	206	259	182	1	1	137	113	24
NORTH ANDOVER	23,061	1	282	76	196	0	0	152	155	86
NORTH ATTLEBORO	25,056	4	385	62	158	3	3	182	155	227
NORTH BROOKFIELD	4,720	0	63	7	32	0	0	35	36	31
NORTH READING	12,176	1	169	33	80	0	0	84	60	89
NORTHAMPTON	29,232	1,148	276	610	304	0	0	279	238	-28
NORTHBOROUGH	11,995	0	167	40	75	2	2	95	75	92
NORTHBRIDGE	13,368	0	184	114	125	2	1	88	85	59
NORTHFIELD	2,838	0	24	6	21	0	0	17	32	3
NORTON	14,357	2	287	35	74	1	1	72	85	213
NORWELL	9,279	0	104	38	66	2	2	44	58	38
NORWOOD	28,830	1,152	369	592	267	1	1	278	239	102
OAK BLUFFS	2,809	130	40	79	43	0	0	32	50	-3
OAKHAM	1,537	0	30	4	10	0	0	2	6	20
ORANGE	7,425	0	105	15	62	0	0	41	50	43
ORLEANS	6,040	0	49	41	91	0	0	76	97	-42

(1) POPULATION DATA ARE INTERPOLATIONS OF THE 1990 U.S. CENSUS AND MISER 1995 ESTIMATES

(2) INFANT AND NEONATAL DEATHS ARE INCLUDED IN TOTAL RESIDENT DEATHS.

(3) MARRIAGE INTENTIONS MAY BE FILED IN ANY MASSACHUSETTS COMMUNITY, REGARDLESS OF WHERE THE BRIDE AND GROOM RESIDE OR WHERE THE MARRIAGE CEREMONY OCCURS.

(4) MARRIAGE FIGURES REFLECT OCCURRENCE, NOT RESIDENCE.

TABLE A-4A
VITAL EVENTS BY COMMUNITY
1991

COMMUNITY	POPULATION (1)	LIVE BIRTHS : OCCURRENCE : : RESIDENT :	DEATHS : OCCURRENCE : : RESIDENT :	INFANT DEATHS : TOTAL : : (2) :	MARRIAGES : LICENSES : : ISSUED : : (3) : : (4)	RESIDENT : NATURAL : INCREASE
STATE TOTAL	6,038,684	89,610 : 88,176	53,688 : 53,010	576 : 400	44,621 : 44,621	35,166
OTIS	1,110	0	1	1	12	13
OXFORD	12,720	2	34	1	93	95
PALMER	12,168	3	114	1	120	57
PAXTON	4,087	0	2	0	22	25
PEABODY	47,161	0	298	5	340	260
PELHAM	1,429	0	4	0	6	19
PEMBROKE	14,682	0	29	0	103	173
PEPPERELL	10,431	0	11	1	64	134
PERU	820	0	2	0	4	6
PETERSHAM	1,133	0	5	0	9	0
PHILLIPSTON	1,478	0	2	0	7	7
PITTSFIELD	48,236	1,260	796	2	431	165
PLAINFIELD	587	0	3	0	7	5
PLAINVILLE	6,929	0	15	0	62	49
PLYMOUTH	45,612	962	496	4	280	383
PLYMPTON	2,412	0	10	0	7	35
PRINCETON	3,247	1	3	0	9	26
PROVINCETOWN	3,572	0	2	0	43	-48
QUINCY	85,369	931	72	0	63	225
RANDOLPH	30,355	0	783	6	810	124
RAYNHAM	9,935	1	97	1	198	41
READING	22,661	1	10	0	64	121
REHOBOTH	8,830	2	80	2	158	71
REVERE	43,053	3	9	0	45	162
RICHMOND	1,684	0	144	6	315	10
ROCHESTER	4,045	0	0	0	8	20
ROCKLAND	16,026	0	5	0	20	125
ROCKPORT	7,500	0	79	2	115	-21
ROWE	393	0	33	0	59	-2
ROWLEY	4,522	0	0	0	2	41
ROYALSTON	1,176	0	24	0	24	9
RUSSELL	1,628	0	3	0	0	1
			0	0	8	16

(1) POPULATION DATA ARE INTERPOLATIONS OF THE 1990 U.S. CENSUS AND MISER 1995 ESTIMATES

(2) INFANT AND NEONATAL DEATHS ARE INCLUDED IN TOTAL RESIDENT DEATHS.

(3) MARRIAGE INTENTIONS MAY BE FILED IN ANY MASSACHUSETTS COMMUNITY, REGARDLESS OF WHERE THE BRIDE AND GROOM RESIDE OR WHERE THE MARRIAGE CEREMONY OCCURS.

(4) MARRIAGE FIGURES REFLECT OCCURRENCE, NOT RESIDENCE.

TABLE A-4A
VITAL EVENTS BY COMMUNITY
1991

COMMUNITY	POPULATION (1)	LIVE BIRTHS : OCCURRENCE : :	DEATHS : OCCURRENCE : RESIDENT :	INFANT DEATHS : TOTAL : NEONATAL (2) :	MARRIAGES : LICENSES : OCCURRENCE ISSUED : (3) : (4)	RESIDENT NATURAL INCREASE
STATE TOTAL	6,038,684	89,610 : 88,176	53,688 : 53,010	576 : 400	44,621 : 44,621	35,166
RUTLAND	4,984	0	17	0	16	39
SALEM	38,212	2,403	704	6	328	246
SALISBURY	7,223	0	21	0	45	46
SANDISFIELD	729	0	4	0	2	-10
SANDWICH	16,032	0	55	3	98	108
SAUGUS	25,620	0	76	0	179	89
SAVOY	670	0	0	0	3	3
SCITUATE	16,756	0	70	2	137	55
SEEKONK	13,098	2	33	1	178	46
SHARON	15,788	0	22	0	71	118
SHEFFIELD	2,924	2	7	0	37	14
SHELBURNE	2,040	0	15	1	16	1
SHERBORN	4,068	0	4	0	20	16
SHIRLEY	6,236	1	6	1	37	64
SHREWSBURY	24,124	2	59	2	174	106
SHUTESBURY	1,585	1	4	1	6	14
SOMERSET	17,627	0	62	0	110	-37
SOMERVILLE	75,075	5	327	5	494	443
SOUTH HADLEY	16,748	1	55	1	124	26
SOUTHAMPTON	4,592	0	10	0	20	26
SOUTHBOROUGH	6,645	1	11	0	61	65
SOUTHBRIDGE	17,657	570	245	4	165	129
SOUTHWICK	7,814	1	9	0	52	61
SPENCER	11,801	2	29	1	89	95
SPRINGFIELD	155,585	6,079	2,428	30	1,167	1,468
STERLING	6,671	1	7	1	38	37
STOCKBRIDGE	2,404	0	8	1	34	-9
STONEHAM	22,403	1,025	219	1	179	47
STOUGHTON	27,171	1,926	438	2	228	157
STOW	5,448	0	4	0	25	46
STURBRIDGE	7,933	0	11	1	77	43
SUDBURY	14,516	0	51	0	119	116

(1) POPULATION DATA ARE INTERPOLATIONS OF THE 1990 U.S. CENSUS AND MISER 1995 ESTIMATES

(2) INFANT AND NEONATAL DEATHS ARE INCLUDED IN TOTAL RESIDENT DEATHS.

(3) MARRIAGE INTENTIONS MAY BE FILED IN ANY MASSACHUSETTS COMMUNITY, REGARDLESS OF WHERE THE BRIDE AND GROOM RESIDE OR WHERE THE MARRIAGE CEREMONY OCCURS.

(4) MARRIAGE FIGURES REFLECT OCCURRENCE, NOT RESIDENCE.

TABLE A-4A
VITAL EVENTS BY COMMUNITY
1991

COMMUNITY	POPULATION (1)	LIVE BIRTHS OCCURRENCE : RESIDENT	DEATHS OCCURRENCE : RESIDENT	INFANT DEATHS TOTAL : NEONATAL (2)	MARRIAGES LICENSES : OCCURRENCE ISSUED : (3) : (4)	RESIDENT NATURAL INCREASE
STATE TOTAL	6,038,684	89,610 : 88,176	53,688 : 53,010	576 : 400	44,621 : 44,621	35,166
SUNDERLAND	3,397	1	24	0	14	33
SUTTON	6,965	0	8	3	39	55
SWAMPSCOTT	13,589	0	61	0	91	6
SWANSEA	15,494	0	54	0	120	37
TAUNTON	49,677	740	510	7	147	426
TEMPLETON	6,492	0	29	0	423	30
TEWKSBURY	27,544	0	105	7	42	309
TISBURY	3,247	0	12	1	170	1
TOLLAND	297	0	1	0	54	3
TOPSFIELD	5,762	0	7	0	3	13
TOWNSEND	8,852	0	4	0	26	86
TRURO	1,585	0	8	0	32	-9
TYNGSBOROUGH	8,923	0	7	2	26	90
TYRINGHAM	381	0	0	0	41	3
UPTON	4,731	1	12	0	1	55
UXBRIDGE	10,426	0	12	0	27	106
WAKEFIELD	25,008	0	111	2	67	78
WALES	1,633	0	0	0	211	11
WALPOLE	20,560	2	37	1	3	156
WALTHAM	58,002	552	502	2	112	252
WARE	9,898	190	90	7	448	22
WAREHAM	19,611	476	251	2	64	52
WARREN	4,467	0	9	1	137	37
WARWICK	736	0	2	0	23	3
WASHINGTON	625	0	5	0	1	3
WATERTOWN	33,161	0	3	0	2	53
WAYLAND	12,009	1	118	1	14	55
WEBSTER	16,189	0	36	1	264	64
WELLESLEY	26,719	0	195	4	92	123
WELLFLEET	2,572	0	92	1	110	123
WENDELL	927	0	14	0	201	-4
WENHAM	4,226	0	6	0	33	13
		0	35	0	4	5

(1) POPULATION DATA ARE INTERPOLATIONS OF THE 1990 U.S. CENSUS AND MISER 1995 ESTIMATES

(2) INFANT AND NEONATAL DEATHS ARE INCLUDED IN TOTAL RESIDENT DEATHS.

(3) MARRIAGE INTENTIONS MAY BE FILED IN ANY MASSACHUSETTS COMMUNITY, REGARDLESS OF WHERE THE BRIDE AND GROOM RESIDE OR WHERE THE MARRIAGE CEREMONY OCCURS.

(4) MARRIAGE FIGURES REFLECT OCCURRENCE, NOT RESIDENCE.

TABLE A-4A
VITAL EVENTS BY COMMUNITY
1991

COMMUNITY	POPULATION (1)	LIVE BIRTHS : OCCURRENCE : RESIDENT	DEATHS : OCCURRENCE : RESIDENT	INFANT DEATHS : TOTAL : NEONATAL (2)	MARRIAGES : LICENSES : OCCURRENCE ISSUED : (3) : (4)	RESIDENT NATURAL INCREASE
STATE TOTAL	6,038,684	89,610 : 88,176	53,688 : 53,010	576 : 400	44,621 : 44,621	35,166
WEST BOYLSTON	6,592	0	33	0	46	30
WEST BRIDGEWATER	6,419	0	10	0	59	12
WEST BROOKFIELD	3,612	0	49	0	25	16
WEST NEWBURY	3,492	0	5	0	30	20
WEST SPRINGFIELD	27,484	1	387	4	206	78
WEST STOCKBRIDGE	1,483	0	96	2	0	13
WEST TISBURY	1,706	2	1	0	14	17
WESTBOROUGH	14,104	1	2	0	16	48
WESTFIELD	38,526	2	82	0	146	197
WESTFORD	16,704	0	407	3	280	153
WESTHAMPTON	1,357	0	19	0	86	12
WESTMINSTER	6,260	0	1	0	6	26
WESTON	10,287	1	16	0	46	57
WESTPORT	13,977	1	61	1	60	119
WESTWOOD	12,629	1	24	2	94	40
WEYMOUTH	54,660	0	35	1	80	26
WHATELY	1,401	2,403	841	2	421	278
WHITMAN	13,195	1	5	1	4	9
WILBRAHAM	12,714	0	37	2	104	93
WILLIAMSBURG	2,571	1	58	0	56	11
WILLIAMSTOWN	8,162	2	10	0	9	11
WILMINGTON	17,831	0	68	0	54	30
WINCHENDON	8,910	0	55	2	123	140
WINCHESTER	20,236	0	19	0	58	110
WINDSOR	18,779	1,976	418	4	137	82
WINTHROP	36,408	0	2	0	3	9
WOBBURN	168,607	2	226	0	136	33
WORCESTER	1,244	6,823	103	1	349	192
WORTHINGTON	9,218	0	3,267	27	1,324	895
WRENTHAM	21,393	3	0	0	3	5
YARMOUTH		1	57	0	38	68
			178	2	141	-103

(1) POPULATION DATA ARE INTERPOLATIONS OF THE 1990 U.S. CENSUS AND MISER 1995 ESTIMATES

(2) INFANT AND NEONATAL DEATHS ARE INCLUDED IN TOTAL RESIDENT DEATHS.

(3) MARRIAGE INTENTIONS MAY BE FILED IN ANY MASSACHUSETTS COMMUNITY, REGARDLESS OF WHERE THE BRIDE AND GROOM RESIDE OR WHERE THE MARRIAGE CEREMONY OCCURS.

(4) MARRIAGE FIGURE SELECT OCCURRENCE, NOT RESIDENCE.

TABLE A-4B
VITAL EVENTS BY COUNTY
1991

COUNTY	POPULATION (1)	LIVE BIRTHS		DEATHS		INFANT DEATHS		MARRIAGES (3)	DIVORCES (3)	RESIDENT NATURAL INCREASE
		OCCURRENCE :	RESIDENT :	OCCURRENCE :	RESIDENT :	TOTAL (2)	NEONATAL (2)			
STATE TOTAL	6,038,684	89,610	88,176	53,688	53,010	576	400	44,621	14,987	35,166
BARNSTABLE	190,629	1,846	2,353	2,199	2,286	11	8	2,103	598	67
BERKSHIRE	139,366	1,887	1,685	1,605	1,476	8	6	1,166	209	209
BRISTOL	505,748	5,523	7,301	4,109	4,447	42	31	3,659	1,626	2,854
DUKES	11,887	132	158	107	121	1	0	329	58	37
ESSEX	671,367	9,646	10,313	5,640	6,037	54	39	5,208	1,918	4,276
FRANKLIN	70,564	797	896	592	651	8	4	495	116	245
HAMPDEN	455,762	7,555	7,096	4,659	4,466	64	42	3,281	1,449	2,630
HAMPSHIRE	147,601	1,349	1,612	924	1,090	11	7	978	312	522
MIDDLESEX	1,403,836	20,479	19,688	10,462	11,193	113	91	10,118	2,480	8,495
NANTUCKET	6,240	100	108	57	56	1	0	237	35	52
NORFOLK	620,973	6,434	8,237	4,584	5,302	30	18	4,398	1,473	2,935
PLYMOUTH	436,301	2,849	6,705	2,896	3,460	49	27	3,077	1,448	3,245
SUFFOLK	667,744	20,393	11,264	9,374	6,083	93	64	4,495	1,008	5,181
WORCESTER	710,666	10,620	10,760	6,480	6,342	91	63	5,077	2,257	4,418

(1) POPULATION DATA ARE INTERPOLATIONS OF THE 1990 U.S. CENSUS AND THE MISER 1995 ESTIMATES.

(2) INFANT AND NEONATAL DEATHS ARE INCLUDED IN TOTAL RESIDENT DEATHS.

(3) MARRIAGE AND DIVORCE FIGURES REFLECT OCCURRENCE, NOT RESIDENCE.

BIRTHS

SECTION B

BIRTHS

There were 88,176 live births to Massachusetts residents in 1991, a 4.6% decrease from the 92,461 resident live births in 1990. Live births to Massachusetts residents include all births to Massachusetts residents, regardless of the state in which they occurred. Most data presented in this section are resident data. Table B-10 presents births by hospital of occurrence.

OCCURRENCE BIRTHS

In 1991, 89,610 births occurred in Massachusetts. All but 490 births occurred at the 55¹ hospitals with maternity units. The number of babies delivered at these hospitals ranged from 100 at Nantucket Cottage Hospital in Nantucket to 9,453 at Brigham and Women's Hospital in Boston. The median number of births per hospital was 1,150, a decrease from the median number of 1,195 in 1990. The four hospitals with the greatest number of births -- Brigham and Women's (9,453), Baystate Medical Center (6,060), Beth Israel (5,420) and Worcester Memorial (3,869) -- represented over 27% of all births occurring in Massachusetts. The distribution of Massachusetts births by hospital size is presented below.

**1991 DISTRIBUTION OF MASSACHUSETTS
OCCURRENCE BIRTHS BY HOSPITAL**

NUMBER OF BIRTHS AT HOSPITAL	NUMBER OF HOSPITALS IN CATEGORY	TOTAL NO. OF BIRTHS IN CATEGORY	% OF TOTAL BIRTHS
< 500	10	3,082	3.4
500-999	13	10,536	11.8
1000-1499	11	13,434	15.0
1500-1999	9	16,431	18.3
≥ 2000	12	45,637	50.9
ALL OTHER ²		490	0.6
TOTAL	55	89,610	100.0

¹ Atlanticare Medical Center in Lynn closed its maternity unit effective September 30, 1989. Two other hospitals (Hunt Memorial in Danvers and Worcester Hahnemann in Worcester) closed their maternity units effective June 30, 1990.

² Includes hospitals without maternity units, birthing centers, home births, births en route to hospital and births occurring in a doctor's office/clinic.

HOME BIRTHS

A total of 299 births, or 0.34% of all Massachusetts resident births, occurred at home. Home births are under-counted in the data presented. Home births, much more than hospital births, tend to be recorded as delayed records (more than one year after the event) rather than reported at the time of birth. Delayed record statistics are not included in this report.

BIRTHS BY RACE/ETHNICITY

There are a number of points to keep in mind when analyzing 1991 data by race/ethnicity. Since June 1986, information on both race and ethnicity rather than just race has been collected. This provides improved data, particularly for Hispanic births. Presented for comparison below are resident birth data for calendar years 1990 and 1991, utilizing maternal race and ethnicity information:

RACE AND ETHNICITY OF MOTHER 1990 - 1991

MATERNAL RACE/ETHNICITY	1991		1990		+ OR -
	TOTAL BIRTHS	% OF TOTAL	TOTAL BIRTHS	% OF TOTAL	
White non-Hispanic	68,596	77.8	72,461	78.4	- 3,865
Black non-Hispanic	6,734	7.6	7,159	7.7	- 425
Hispanic	8,476	9.6	8,406	9.1	+ 70
Asian	3,289	3.7	3,423	3.7	- 134
Other	943	1.1	836	0.9	+ 107
Unknown	138	0.2	176	0.2	- 38
TOTAL	88,176	100.0	92,461	100.0	- 4,285

The final point which must be considered is the method used to present data by race/ethnicity. Massachusetts follows the recommendation from the National Center for Health Statistics (NCHS) for classifying race/ethnicity on the birth certificate according to the self-reported race/ethnicity of the mother. In the past, the race/ethnicity of the infant was assigned by combining information on the race/ethnicity of the mother and the father. Beginning with 1989 births, birth data are presented by race/ethnicity of the mother only.

TEEN BIRTHS

For the second consecutive year, the number of births to mothers between the ages of 15 and 19 decreased -- from 7,258 in 1990 to 6,892 in 1991. The percentage of all Massachusetts resident births to mothers in this age group remained the same as in 1990 -- 7.8%. The age-specific birth rate decreased from 35.1 to 33.4.

BIRTHS BY MARITAL STATUS

The proportion of unmarried mothers continued to increase -- to 25.9% of all resident births in 1991 from 24.7% in 1990. More than 85% of the mothers under the age of 20 were unmarried, while 20.8% of the mothers aged 20 or older were unmarried.

BIRTHS BY AGE OF MOTHER

Excluding mothers whose age was unknown and those in the ≥ 45 group, the only percentage increases in births between the years 1990 and 1991 (0.6%) were to mothers in the age groups 35-39 and 40-44, as demonstrated below:

AGE OF MOTHER	NUMBER OF BIRTHS 1991	NUMBER OF BIRTHS 1990	DIFFERENCE IN THE NO. OF BIRTHS 1990-1991	PERCENTAGE CHANGE 1990-1991
< 20	7,014	7,383	- 369	- 5.0
20-24	16,796	18,115	- 1,319	- 7.3
25-29	27,812	29,913	- 2,101	- 7.0
30-34	25,127	25,687	- 560	- 2.2
35-39	9,855	9,795	+ 60	+ 0.6
40-44	1,531	1,522	+ 9	+ 0.6
≥ 45	36	46	- 10	- 21.7

BIRTHS BY CAESAREAN SECTION

The number of Caesarean section deliveries to Massachusetts residents decreased from 20,615 in 1990 to 19,495 in 1991. The rate per 1,000 live births also decreased from 223.0 to 221.1. The lowest rate of C-sections (when the mother's age was known) was for mothers less than 15 years of age through the age of 19 (144.8 per 1,000 live births), and the highest rate was for women aged 40 and over (314.6 per 1,000 live births).

HOSPITAL PROFILES

The following is a synopsis of the data presented in Table B-10, Hospital Profiles, Massachusetts Occurrence Births:

- The rate of Caesarean section deliveries per hospital ranged from 126.7 to 359.1 per 1,000 births.
- The highest percentage of low birthweight babies was at St. Margaret's Hospital in Boston (19.3%), the lowest percentage at Nantucket Cottage Hospital in Nantucket (2.0%). The proportion of low birthweight infants by hospital varied considerably by race/ethnicity.

- Based on total occurrence births, adequacy of prenatal care (as defined by the Kessner index) by hospital of delivery ranged from a low of 40.5% to a high of 96.6%. When comparing prenatal care by race/ethnicity per hospital, white non-Hispanic mothers received 41.1% to 96.8% adequate care; black non-Hispanic mothers received 18.7% to 93.1% adequate care; Hispanic mothers received 14.3% to 92.3% adequate care; and Asian mothers received 37.1% to 96.5% adequate care.
- Statewide, 58.2% of all new mothers breast fed their babies. By race/ethnicity, 59.5% of Hispanic mothers nursed their babies, followed by white non-Hispanic mothers (59.2%), Asian mothers (50.5%), and black non-Hispanic mothers (49.6%). The highest percent of mothers who breast fed their babies occurred at Falmouth Hospital in Falmouth (84.8%), and the lowest percent occurred at Charlton Memorial Hospital in Fall River (32.6%).
- Statewide, private insurers paid for 70.5% of all deliveries. Private insurers paid for delivery for 79.4% of white non-Hispanic mothers, 60.0% of Asian mothers, 43.7% of black non-Hispanic mothers, and 25.5% of Hispanic mothers. Private insurers (Blue Cross/Blue Shield, Health Maintenance Organizations and commercial insurers) paid for the highest percentage of births at South Shore Hospital in Weymouth (94.4%) and the lowest percentage at Cambridge Hospital in Cambridge (20.6%).

LOW BIRTHWEIGHT INFANTS

The percentage of low birthweight babies (less than 2,500 grams or five pounds eight ounces) increased slightly from 5.8% of total births in 1990 to 5.9% in 1991 (5,200 births). The percent of low birthweight babies born to mothers under the age of 20 remained the same in 1991 as in 1990 -- 11.0%.

DEFINITIONS IMPORTANT FOR THIS SECTION INCLUDE:

ADEQUACY OF PRENATAL CARE

The Index of Adequacy of Prenatal Care (based on the Kessner Index) has five categories (adequate, intermediate, inadequate, no prenatal care, and unknown), based on the trimester in which prenatal care began and the number of prenatal visits. The general classification scheme is as follows:

CATEGORY	TRIMESTER CARE BEGAN	# OF VISITS
Adequate	1	9 or more
Intermediate	1	5-8
	2	5 or more
Inadequate	1	1-4
	2	1-4
	3	1 or more
No prenatal care	--	0
Unknown	Unknown	Unknown

This classification is adjusted for gestational age to allow for proper classification of premature births.

BIRTHWEIGHT

The weight of an infant recorded at the time of delivery. It may be recorded in either pounds/ounces or grams. If recorded in pounds/ounces, it is converted to grams for use in this report.

1 pound = 453.6 grams

1,000 grams = 2 pounds, 3 ounces

BIRTHWEIGHT CATEGORIES

Normal birthweight (NBW): An infant's weight of 2,500 grams (5.5 pounds) or more recorded at birth.

Low birthweight (LBW): An infant's weight of less than 2,500 grams (5.5 pounds) recorded at birth.

Very low birthweight (VLBW): An infant's weight of less than 1,500 grams (3.3 pounds) recorded at birth.

CAESAREAN SECTION or C-SECTION

Primary: A mother's first Caesarean section delivery.

Repeat: A Caesarean delivery that has been preceded by at least one Caesarean delivery.

ETHNICITY

See Race.

INFANT

A child whose age is less than one year (365 days).

LIVE BIRTH

A live birth is any infant who breathes or shows any other evidence of life (such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles) after separation from the mother's uterus, regardless of the duration of gestation.

LOW BIRTHWEIGHT (LBW)

See Birthweight Categories.

NEONATE

A child under 28 days of age.

NORMAL BIRTHWEIGHT (NBW)

See Birthweight Categories.

OCCURRENCE BIRTH

A birth occurring in the Commonwealth of Massachusetts, regardless of the residency of the mother. In Massachusetts, the place will be one of the 351 cities or towns. See Resident Birth.

PARITY

Total number of live births, including the present birth, ever born to the mother.

POST NEONATE

A child whose age is at least 28 days, but less than one year.

PRIMARY

See Caesarean Section.

RACE

Race of Infant: For birth data presented in this publication labeled "old", infant's race is derived from parents' race. For birth data labeled "new", infant's race is the mother's self-reported race, according to written recommendation by the National Center for Health Statistics. (Race on a death certificate is determined by the certifier of the death.)

Race of mother: For data presented in this publication, mother's race is as reported by the infant's mother.

Race/ethnicity: Data on race/ethnicity are available starting in June 1986 by using the new birth certificate implemented on June 1, 1986. This birth certificate includes separate questions on race and ethnicity of each parent. A major effect of this modification is the more precise specification of Hispanic ethnicity.

REPEAT

See Caesarean Section.

RESIDENT BIRTH

The birth of an infant whose mother reports her usual place of residence is in Massachusetts. In Massachusetts, a resident is a person with a permanent address in one of the 351 cities or towns. Vital statistics data may be presented in terms either of residence or occurrence. Unless otherwise noted, all data in this publication are resident data. Resident data include all events that occur to residents of the Commonwealth, wherever they occur. Occurrence data include all events that occur within the state, whether to residents or non-residents. There is an exchange agreement among the 50 states, Canada, Puerto Rico, Guam, the Virgin Islands, and the District of Columbia that provides for exchange of copies of birth and death records. These records are used for statistical purposes only, and allow each state or province to track the births and deaths of its residents.

VERY LOW BIRTHWEIGHT (VLBW)

See Birthweight Categories.

RATES IMPORTANT FOR THIS SECTION INCLUDE:

AGE-SPECIFIC BIRTH RATE $\frac{\text{No. of Resident Live Births for a Specific Age Group of Mothers}}{\text{Total Female Population of That Specific Age Group}} \times 1,000$

CRUDE BIRTH RATE $\frac{\text{No. of Resident Live Births}}{\text{Total Resident Population}} \times 1,000$

GENERAL FERTILITY RATE $\frac{\text{No. of Resident Live Births}}{\text{Total Female Population of Childbearing Age (15-44)}} \times 1,000$

FIGURE B-1

Every day in 1991, residents of Massachusetts experienced an average of:



242
Births



14 Births Weighing
<2500 Grams
(Low Birthweight)



19 Births to Women
Aged 15 through 19



31 Births to Women
Aged 35 or Older



45 Births with less
than Adequate
Prenatal Care



53 Births by
Caesarean Section

TABLE B-1
TRENDS IN BIRTH CHARACTERISTICS
MASSACHUSETTS RESIDENTS
1980-1991

YEAR	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
BIRTHS	# Rate ¹	73,930 54.0	75,749 54.8	76,031 54.5	78,197 55.5	81,781 57.5	82,168 57.3	84,345 58.3	88,047 60.3	91,314 61.9	92,461 62.1	88,176 59.7
RACE OF MOTHER²												
White³	# %	66,802 90.4	67,838 89.6	68,038 89.5	69,137 88.4	71,854 87.9	71,855 87.4	74,444 88.3	76,746 87.2	80,027 87.6	80,775 87.4	76,979 87.3
Black	# %	4,626 6.4	4,673 6.2	4,570 6.0	4,829 6.2	5,099 6.2	5,407 6.6	6,198 7.4	6,725 7.6	7,374 8.1	7,729 8.3	7,352 8.4
Other⁴	# %	1,069 1.5	1,292 1.7	1,460 1.9	1,683 2.1	1,741 2.1	2,299 2.8	2,651 3.1	3,343 3.8	3,526 3.9	3,688 4.0	3,570 4.0
Unknown	# %	676 0.9	1,149 1.6	1,778 2.3	1,847 2.4	3,087 3.8	2,607 3.2	1,052 1.2	1,233 1.4	387 0.4	269 0.3	275 0.3
TEENAGE BIRTHS	# Rate ⁵	7,694 28.1	7,334 27.5	7,263 28.0	6,833 27.0	6,859 28.7	6,754 29.1	6,923 30.7	7,113 32.5	7,606 35.9	7,258 35.1	6,892 33.4
LOW BIRTHWEIGHT	# %	4,413 6.1	4,428 6.0	4,447 5.9	4,461 5.9	4,751 5.8	4,642 5.6	4,846 5.7	5,266 6.0	5,372 5.9	5,388 5.8	5,200 5.9
ADEQUATE PRENATAL CARE	% %	82.0 79.6	82.9 80.4	81.8 79.9	79.8 78.4	79.7 79.2	79.1 76.2	78.2 75.4	78.8 75.4	78.8 77.6	80.1 78.8	81.5 81.2

¹ Rate per 1,000 women aged 15-44. Differences in rates from previous publications are the results of modifications of population estimates.

² Past editions of the Annual Report of Vital Statistics used race of infant. See Changes in the Calculation of Infant Mortality Rate in Section D.

³ Prior to June 1986, birth certificate data did not include a specific ethnicity classification. Individuals who indicated Hispanic as their racial classification were grouped into the race category of white. Since June 1986, birth certificate data have included both a race and an ethnicity component. Individuals of Hispanic ethnicity are classified according to the race category that they select. In cases where the race category of Hispanic is selected, the record is classified as other.

⁴ Other races include Asian, American Indian, Hawaiian, and other.

⁵ Rate per 1,000 females aged 15-19.

⁶ Percentages in upper row are based on births with known scores of adequacy of prenatal care; bottom row percentages are based on total numbers of births.

TABLE B-2
AGE-SPECIFIC AND CRUDE BIRTH RATES
MASSACHUSETTS RESIDENT BIRTHS
1990-1991

Mother's Age	1990		1991		Percent Change
	<u>Births</u> Population ¹	Rate	<u>Births</u> Population	Rate	
10-14	<u>125</u> 169,117	0.7	<u>122</u> 172,246	0.7	0.0
15-19	<u>7,258</u> 206,741	35.1	<u>6,892</u> 206,349	33.4	- 4.8
20-24	<u>18,115</u> 260,537	69.5	<u>16,796</u> 253,934	66.1	- 4.9
25-29	<u>29,913</u> 279,025	107.2	<u>27,812</u> 272,290	102.1	- 4.8
30-34	<u>25,687</u> 273,629	93.9	<u>25,127</u> 271,045	92.7	- 1.3
35-39	<u>9,795</u> 243,972	40.1	<u>9,855</u> 247,216	39.9	- 0.5
40-44	<u>1,522</u> 221,975	6.9	<u>1,531</u> 227,254	6.7	- 2.9
General Fertility Rate, ages 15-44 ²	<u>92,290</u> 1,485,879	62.1	<u>88,013</u> 1,478,088	59.5	- 4.2
Crude Birth Rate ³	<u>92,461</u> 6,016,425	15.4	<u>88,176</u> 6,038,684	14.6	- 5.2

¹ Massachusetts 1990 population data are taken from 1990 US Census data; 1991 population data are interpolations of the 1990 US Census and MISER 1995 projections.

² Births per 1,000 females aged 15-44.

³ Births per 1,000 residents.

Figure B-2
Resident Live Births by Mother's Race/Ethnicity
1991

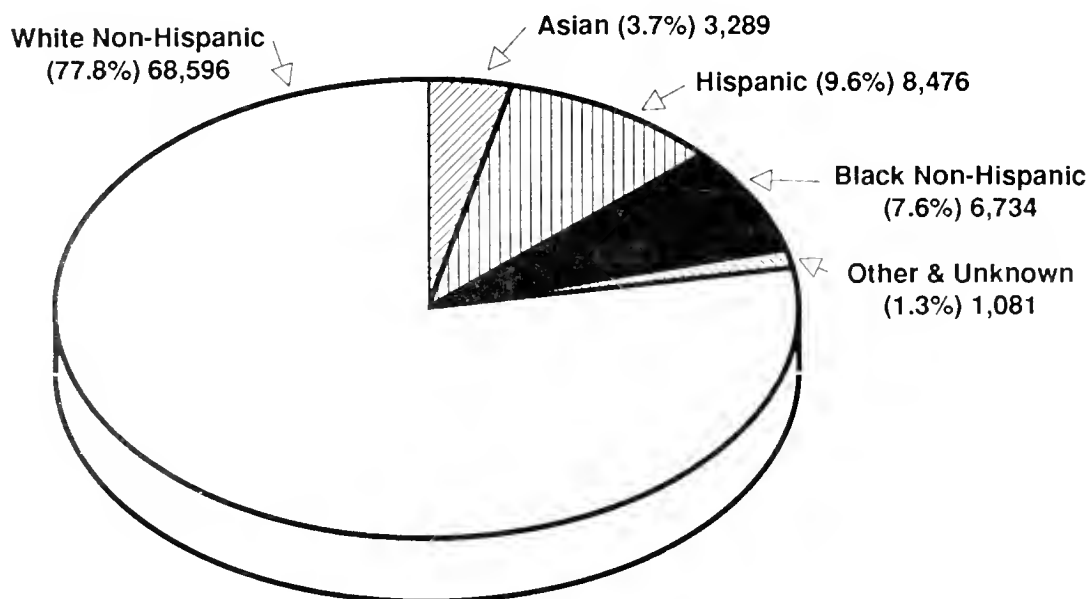


Figure B-3
Resident Live Births by Mother's Age
1991

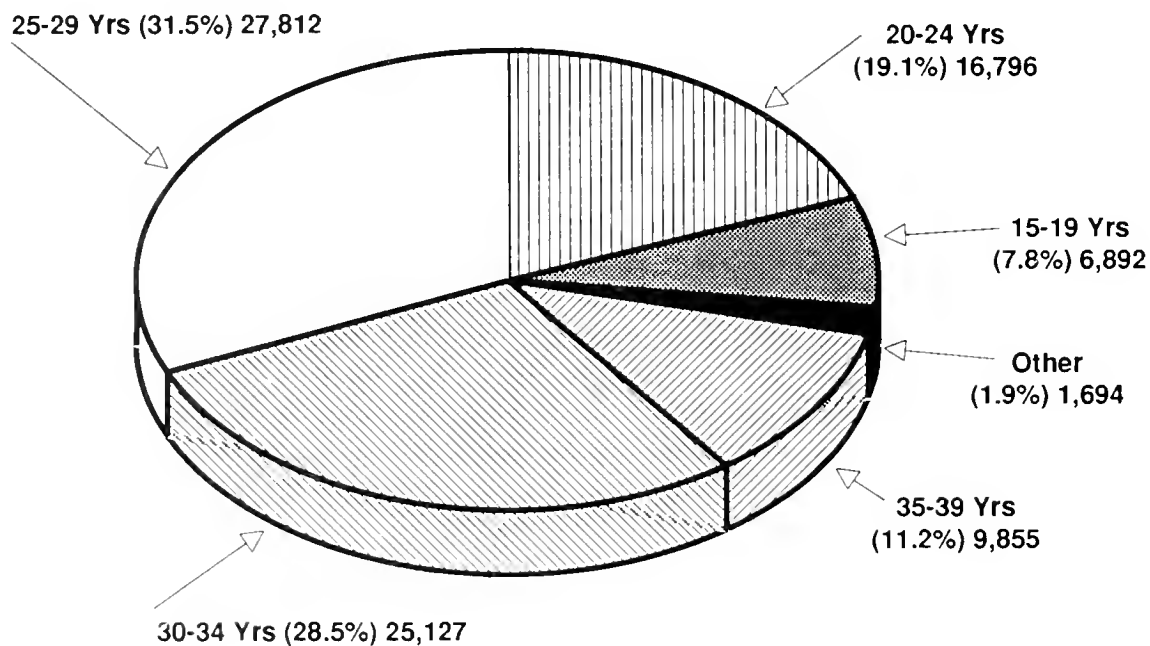


TABLE B-3
BIRTHS BY MOTHER'S AGE, MARITAL STATUS AND RACE/ETHNICITY
MASSACHUSETTS RESIDENT BIRTHS
1991

AGE OF MOTHER	MARITAL STATUS	TOTAL	WHITE NON-HISPANIC	BLACK NON-HISPANIC	HISPANIC	ASIAN	OTHER	UNKNOWN
GRAND TOTAL¹		88,176	68,596	6,734	8,476	3,289	943	138
TOTAL MARRIED		65,320	56,262	2,441	3,439	2,617	461	100
TOTAL UNMARRIED		22,851	12,330	4,293	5,037	672	481	38
< 15	TOTAL	122	29	33	50	9	0	1
	MARRIED	4	0	1	2	1	0	0
	UNMARRIED	118	29	32	48	8	0	1
15	TOTAL	372	131	64	155	15	7	0
	MARRIED	17	4	2	10	1	0	0
	UNMARRIED	355	127	62	145	14	7	0
16	TOTAL	758	352	148	227	16	13	2
	MARRIED	50	22	4	23	0	1	0
	UNMARRIED	708	330	144	204	16	12	2
17	TOTAL	1,391	705	206	404	37	38	1
	MARRIED	124	50	3	64	5	2	0
	UNMARRIED	1,267	655	203	340	32	36	1
18	TOTAL	1,910	1,120	274	422	55	35	4
	MARRIED	262	169	16	62	11	4	0
	UNMARRIED	1,648	951	258	360	44	31	4
19	TOTAL	2,461	1,499	334	511	62	52	3
	MARRIED	548	382	22	108	25	11	0
	UNMARRIED	1,913	1,117	312	403	37	41	3
20-24	TOTAL	16,796	11,295	1,787	2,782	648	269	15
	MARRIED	8,630	6,779	375	975	386	108	7
	UNMARRIED	8,166	4,516	1,412	1,807	262	161	8
25-29	TOTAL	27,812	22,297	1,910	2,292	1,020	260	33
	MARRIED	22,832	19,699	865	1,213	874	156	25
	UNMARRIED	4,980	2,598	1,045	1,079	146	104	8
30-34	TOTAL	25,127	21,433	1,363	1,157	943	183	48
	MARRIED	22,587	20,083	761	704	883	115	41
	UNMARRIED	2,540	1,350	602	453	60	68	7
35-39	TOTAL	9,855	8,420	523	413	401	71	27
	MARRIED	8,879	7,873	328	237	362	56	23
	UNMARRIED	976	547	195	176	39	15	4
40-44	TOTAL	1,531	1,282	89	62	80	14	4
	MARRIED	1,358	1,177	62	40	67	8	4
	UNMARRIED	173	105	27	22	13	6	0
≥ 45	TOTAL	36	29	3	1	3	0	0
	MARRIED	29	24	2	1	2	0	0
	UNMARRIED	7	5	1	0	1	0	0

¹ Grand total includes five women of unknown age.

TABLE B-4
RESIDENT BIRTHS TO TEENAGE MOTHERS
1970-1991

YEAR	TOTAL BIRTHS	AGE OF MOTHER									
		12	13	14	15	16	17	18	19	TOTAL 12-19	% OF TOTAL BIRTHS
1970	93,582	3	8	70	320	802	1,726	3,043	4,285	10,257	11.0
1971	86,755	3	23	84	313	875	1,738	2,981	4,000	10,017	11.5
1972	76,835	1	20	103	348	955	1,841	2,834	3,690	9,792	12.7
1973	72,237	0	12	93	393	959	1,759	2,584	3,282	9,082	12.6
1974	70,071	2	16	79	333	895	1,762	2,524	3,181	8,792	12.5
1975	68,070	2	18	84	325	915	1,678	2,560	3,085	8,667	12.7
1976	65,947	7	12	96	336	807	1,478	2,332	2,923	7,991	12.1
1977	67,838	1	18	68	270	792	1,477	2,293	2,913	7,832	11.5
1978	68,526	3	15	67	303	737	1,445	2,252	2,979	7,801	11.4
1979	70,568	2	9	70	283	773	1,413	2,306	2,916	7,772	11.0
1980	72,591	1	14	56	300	740	1,360	2,202	3,092	7,765	10.7
1981	73,931	1	12	82	275	722	1,357	2,164	2,816	7,429	10.0
1982	75,749	1	14	83	299	753	1,328	2,161	2,722	7,361	9.7
1983	76,031	0	8	78	255	726	1,278	2,053	2,521	6,919	9.1
1984	78,198	1	8	75	265	714	1,307	2,061	2,585	7,016	9.0
1985	81,776	4	12	97	295	698	1,283	1,986	2,595	6,970	8.5
1986	82,163	0	15	82	334	712	1,233	1,954	2,521	6,851	8.3
1987	84,343	2	15	79	327	796	1,337	1,965	2,498	7,019	8.3
1988	88,047	0	27	120	352	732	1,450	2,068	2,511	7,260	8.2
1989	91,314	0	19	108	345	853	1,426	2,207	2,776	7,734	8.5
1990	92,461	3	18	103	351	810	1,344	2,014	2,739	7,382	8.0
1991	88,176	2	18	102	372	758	1,391	1,910	2,461	7,014	7.9

TABLE B-5
BIRTHS BY BIRTHWEIGHT AND MOTHER'S RACE/ETHNICITY
MASSACHUSETTS RESIDENT BIRTHS
1991

Birthweight (in grams)	TOTAL # % ¹	White Non-Hispanic # %	Black Non-Hispanic # %	Hispanic # %	Asian # %	Other # %	Unknown # %
State Total	88,176 100.0	68,596 100.0	6,734 100.0	8,476 100.0	3,289 100.0	943 100.0	138 100.0
<500	102 0.1	58 0.1	21 0.3	17 0.2	2 -- ²	1 --	3 --
500-999	403 0.5	254 0.4	83 1.2	50 0.6	12 0.4	2 --	2 --
1,000-1,499	497 0.6	338 0.5	81 1.2	52 0.6	20 0.6	6 0.6	0 --
VLBW (0-1,499)³	1,002 1.1	650 0.9	185 2.7	119 1.4	34 1.0	9 1.0	5 3.6
1,500-1,999	954 1.1	667 1.0	144 2.1	111 1.3	23 0.7	9 1.0	0 --
2,000-2,499	3,244 3.7	2,219 3.2	450 6.7	385 4.5	142 4.3	45 4.8	3 --
LBW (0-2,499)⁴	5,200 5.9	3,536 5.2	779 11.6	615 7.3	199 6.0	63 6.7	8 5.8
2,500-2,999	13,046 14.8	8,988 13.1	1,482 22.0	1,593 18.8	787 23.9	178 18.9	18 13.0
3,000-3,499	31,434 35.6	23,818 34.7	2,490 37.0	3,320 39.2	1,419 43.1	355 37.6	32 23.2
3,500-3,999	27,490 31.2	22,689 33.1	1,510 22.4	2,245 26.5	746 22.7	258 27.4	42 30.4
4,000-4,499	9,096 10.3	7,886 11.5	406 6.0	594 7.0	127 3.9	72 7.6	11 8.0
4,500-4,999	1,656 1.9	1,483 2.2	55 0.8	95 1.1	7 0.2	14 1.5	2 --
≥ 5,000	173 0.2	153 0.2	9 0.1	6 0.1	3 --	2 --	0 --
Unknown	81 0.1	43 0.1	3 --	8 0.1	1 --	1 --	25 18.1

¹ Percentages are based on column totals.

² Calculations based on fewer than five events are excluded.

³ VLBW: Very Low Birthweight (< 1,500 grams or 3.3 pounds).

⁴ LBW: Low Birthweight (< 2,500 grams or 5.5 pounds).

TABLE B-6
BIRTH CHARACTERISTICS BY MOTHER'S RACE/ETHNICITY
MASSACHUSETTS RESIDENT BIRTHS
1991

MOTHER'S RACE/ETHNICITY	TOTAL BIRTHS	TEENAGE BIRTHS		BIRTHWEIGHT		PRENATAL CARE ¹		CAESAREAN SECTIONS	BREAST-FEEDING ⁴
		< 18 years	< 20 years	Very Low ²	Low ³	Adequate	First Trimester		
	Number	%	%	%	%	%	% ⁵	%	%
STATE TOTAL	88,176	3.0	8.0	1.1	5.9	81.5	85.8	22.2	58.2
WHITE NON-HISPANIC	68,596	1.8	5.6	0.9	5.2	86.0	89.7	22.9	59.3
BLACK NON-HISPANIC	6,734	6.7	15.8	2.7	11.6	61.8	68.0	20.9	49.7
Haitian	1,046	2.2	5.1	2.8	9.8	66.3	71.6	25.4	69.4
Other Black Non-Hispanic	5,688	7.5	17.7	2.7	11.9	60.9	67.3	20.0	46.0
HISPANIC	8,476	9.9	20.9	1.4	7.3	67.9	73.7	20.0	59.7
Puerto Rican	4,907	14.3	28.8	1.7	6.8	65.1	71.1	18.9	46.3
Dominican	1,316	5.1	12.9	0.9	4.4	76.7	80.6	24.4	77.2
Central American	977	3.1	8.6	0.9	6.2	62.3	70.7	14.5	79.5
Other Hispanic	1,276	3.0	7.9	1.0	5.2	73.5	79.0	23.5	78.3
ASIAN	3,289	2.3	5.9	1.0	6.0	71.3	74.9	16.3	50.3
Cambodian	594	6.1	12.6	1.5	7.4	47.8	50.0	7.9	16.0
Other Southeast Asian	735	4.4	12.2	0.8	5.7	58.2	64.7	13.9	25.1
Chinese	966	-- ⁶	1.0	1.3	5.4	84.6	87.4	18.9	58.3
Other Asian	994	0.7	1.9	0.6	6.1	82.2	85.4	20.6	82.1
OTHER ⁷	943	6.2	15.4	1.0	6.7	63.5	72.0	22.3	58.8
UNKNOWN ⁸	138	--	8.0	4.4	7.1	71.3	75.9	16.1	62.2

¹ Calculations are computed for births with known adequacy of prenatal care scores, based on the Kessner Index. See definitions at the beginning of this section.

² Very Low Birthweight: < 1,500 grams or 3.3 pounds.

³ Low Birthweight: < 2,500 grams or 5.5 pounds.

⁴ Mother was or was intending to breastfeed at the time the birth certificate was completed.

⁵ Percentage of mothers who had first prenatal visit during the first trimester of the pregnancy.

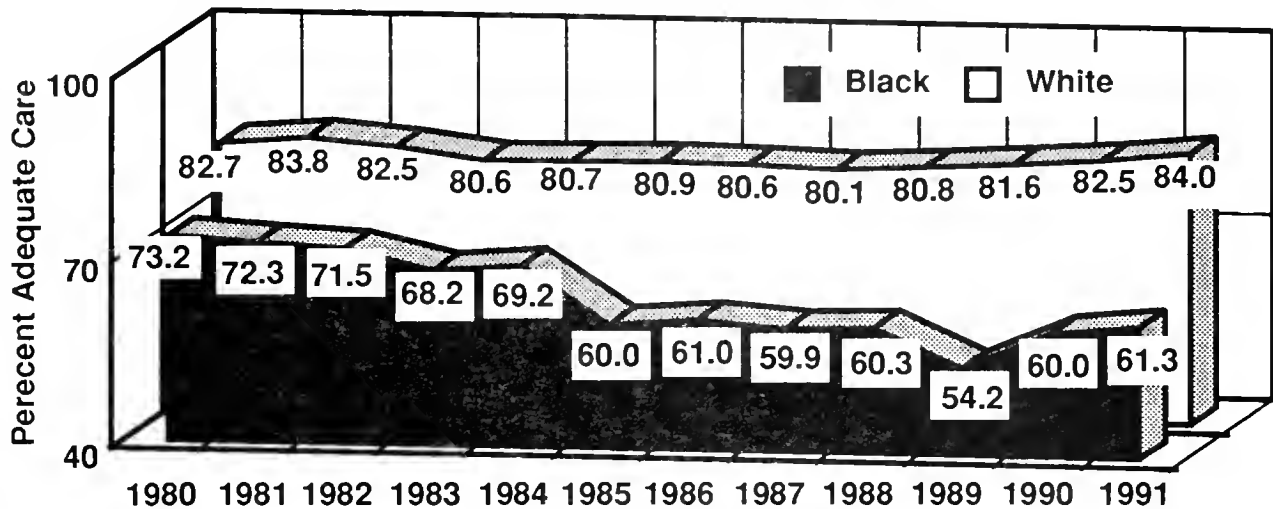
⁶ Calculations based on fewer than five events are excluded.

⁷ Other: Mothers who designated themselves as Other race.

⁸ Unknown: Mothers who did not indicate a race/ethnicity.

Figure B-4

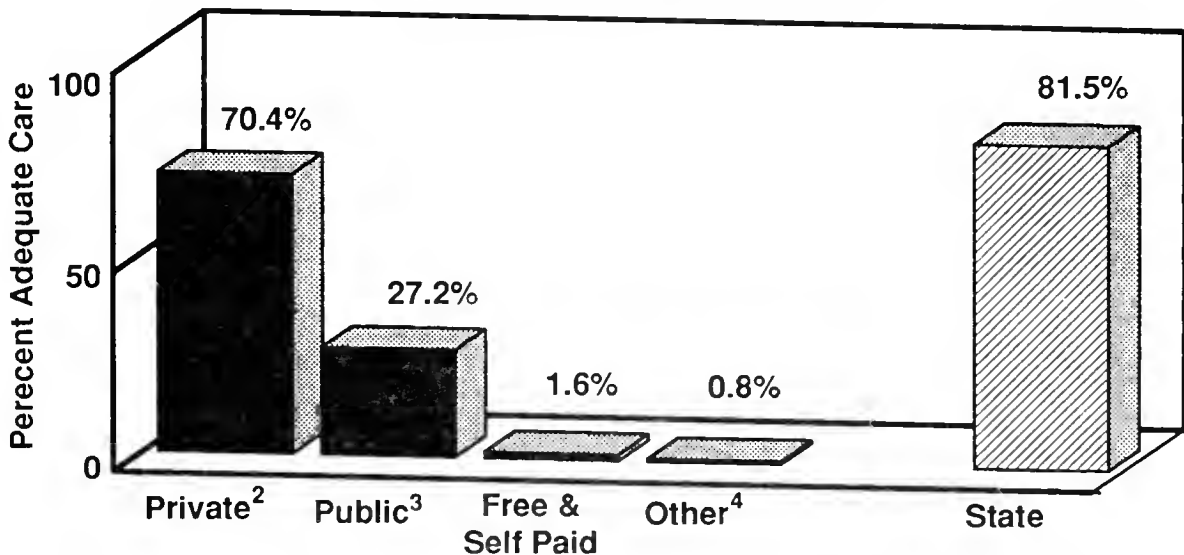
Trends in Adequacy of Prenatal Care¹ by Mother's Race² Massachusetts: 1980-1991



1. Calculations are based on births with known adequacy of prenatal care scores.
2. When calculating statistics which include data before June 1986, the race classifications do not include an ethnicity component; most Hispanics are included in the race category of white.

Figure B-5

Adequacy of Prenatal Care by Prenatal Care Source of Payment¹ Massachusetts: 1991



1. The source of payment for prenatal care is a self-reported item on the birth certificate. As with all such data, they are subject to the limitations of self-reported information and should be interpreted with the usual caution.
2. Private: Blue Cross/Blue Shield, Commercial Insurers and Health Maintenance Organizations.
3. Public: Medicaid, Medicare, Healthy Start and Other Government.
4. Other: Workers' Compensation and Other.

TABLE B-7
PARITY¹ BY AGE OF MOTHER
MASSACHUSETTS RESIDENT BIRTHS
1991

AGE OF MOTHER		TOTAL	1ST	2ND	3RD	4TH	5TH	6TH	7TH	8TH	≥9	UNKNOWN
TOTAL	#	88,176	38,221	28,786	13,750	4,669	1,534	572	219	117	47	261
	%	100.00 ²	43.35	32.65	15.59	5.30	1.74	0.65	0.25	0.13	0.05	0.30
10-14	#	122	119	3	0	0	0	0	0	0	0	0
	%	100.00	97.50	2.50	0.00 ³	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15-19	#	6,892	5,405	1,183	245	33	7	1	0	0	0	18
	%	100.00	78.42	17.16	3.55	0.48	0.10	0.01	0.00	0.00	0.00	0.26
20-24	#	16,796	8,798	5,165	1,997	567	177	53	8	1	0	30
	%	100.00	52.38	30.75	11.89	3.38	1.05	0.32	0.05	0.01	0.00	0.18
25-29	#	27,812	12,538	9,196	4,018	1,365	415	147	46	20	5	62
	%	100.00	45.10	33.10	14.45	4.91	1.49	0.53	0.17	0.10	0.02	0.22
30-34	#	25,127	8,398	9,309	4,906	1,618	530	177	73	34	13	69
	%	100.00	33.42	37.05	19.52	6.44	2.11	0.70	0.29	0.14	0.05	0.27
35-39	#	9,855	2,553	3,444	2,258	929	326	160	72	43	16	54
	%	100.00	25.91	34.95	22.91	9.43	3.31	1.62	0.73	0.44	0.16	0.55
40-44	#	1,531	399	477	317	154	76	34	19	18	11	26
	%	100.00	26.10	31.16	20.71	10.10	4.96	2.22	1.24	1.18	0.72	1.70
≥45	#	36	10	8	7	3	3	0	1	1	2	1
	%	100.00	27.78	22.22	19.44	8.33	8.33	0.00	2.78	2.78	5.56	2.78
UNKNOWN	#	5	1	1	2	0	0	0	0	0	0	1
	%	100.00	20.00	20.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00

¹ The number of live births including this birth.

² Percents may not sum to 100.00 due to rounding.

³ **Percentage less than 0.01%.

TABLE B-8
NUMBER OF PRIMARY AND REPEAT CAESAREAN SECTIONS BY AGE
MASSACHUSETTS RESIDENT BIRTHS
1991

AGE OF MOTHER	TOTAL BIRTHS	C-SECTION RATE PER 1,000 LIVE BIRTHS		TOTAL CAESAREAN DELIVERIES	PRIMARY CAESAREAN DELIVERIES	REPEAT CAESAREAN DELIVERIES
TOTAL	88,176	221.1	# %	19,495 100.0	12,178 62.5	7,317 37.5
< 15	122	123.0	# %	15 100.0	14 93.3	1 6.7
15-19	6,892	145.2	# %	1,001 100.0	872 87.1	129 12.9
20-24	16,796	182.2	# %	3,060 100.0	2,177 71.1	883 28.9
25-29	27,812	215.0	# %	5,979 100.0	3,859 64.5	2,120 35.5
30-34	25,127	245.0	# %	6,157 100.0	3,515 57.1	2,642 42.9
35-39	9,855	283.0	# %	2,789 100.0	1,436 51.5	1,353 48.5
40-44	1,531	312.9	# %	479 100.0	295 61.6	184 38.4
≥ 45	36	388.9	# %	14 100.0	9 64.3	5 35.7
UNKNOWN	5	200.0	# %	1 100.0	1 100.0	0 0.0

TABLE B-9
BIRTHWEIGHT IN GRAMS BY MOTHER'S AGE
NUMBER AND RATE PER THOUSAND LIVE BIRTHS
MASSACHUSETTS RESIDENT BIRTHS: 1991

Birthweight (in grams)		Total	Mother's Age												
			<15	15	16	17	18	19	20-24	25-29	30-34	35-39	40-44	>45	Unknown
Total	#	88,176	122	372	758	1,391	1,910	2,461	16,796	27,812	25,127	9,855	1,531	38	5
	# Rate	102 1.2	0 0.0	0 0.0	3 4.0	2 1.4	3 1.6	4 1.8	22 1.3	35 1.3	25 1.0	8 0.8	0 0.0	0 0.0	0 0.0
500-999	# Rate	403 4.6	4 32.8	1 2.7	6 7.9	16 11.5	14 7.3	18 6.6	77 4.6	108 3.9	103 4.1	48 4.9	9 6.9	1 27.8	0 0.0
1000-1499	# Rate	497 5.6	4 32.8	5 13.4	8 10.6	8 6.8	13 6.8	18 7.3	87 5.2	128 4.6	152 6.0	64 6.5	10 6.5	0 0.0	0 0.0
VLBW ¹	# Rate	1,002 11.4	8 65.6	6 16.1	17 22.4	26 18.7	30 15.7	38 15.4	186 11.1	271 9.7	280 11.1	120 12.2	19 12.4	1 27.8	0 0.0
1500-1999	# Rate	954 10.8	3 24.6	11 29.6	7 9.2	19 13.7	25 13.1	30 12.2	194 11.6	263 9.5	261 10.4	108 11.0	32 20.9	0 0.0	1 200.0
2000-2499	# Rate	3,244 36.8	9 73.8	36 96.8	42 55.4	70 50.3	88 46.1	107 43.5	670 39.9	937 33.7	829 33.0	395 40.1	60 39.2	1 27.8	0 0.0
LBW ²	# Rate	5,200 59.0	20 163.9	63 142.6	66 87.1	115 82.7	143 74.9	175 71.1	1,050 62.6	1,471 52.9	1,370 54.5	623 63.2	111 72.5	2 55.6	1 200.0
2500-2999	# Rate	13,046 148.0	27 221.3	74 198.9	167 220.3	268 192.7	400 209.4	471 191.4	2,905 173.0	3,929 141.3	3,223 128.3	1,358 137.8	213 139.1	10 277.8	1 200.0
3000-3499	# Rate	31,434 356.5	48 377.0	141 379.0	319 420.8	589 423.4	735 384.8	971 394.6	6,348 377.9	9,926 356.9	8,869 346.0	3,205 325.2	480 313.5	5 138.9	0 0.0
3500-3999	# Rate	27,490 311.8	25 204.9	87 233.9	164 216.4	337 242.3	474 248.2	658 267.4	4,798 285.7	8,908 320.3	8,308 330.6	3,226 327.3	495 323.3	11 305.6	1 200.0
4000-4499	# Rate	9,096 103.2	4 32.8	16 43.0	36 47.5	67 48.2	134 70.2	162 65.8	1,432 85.3	2,945 105.9	2,927 116.5	1,182 119.9	183 119.5	7 194.4	1 200.0
4500-4999	# Rate	1,656 18.8	0 0.0	1 2.7	4 6.3	10 7.2	19 9.9	16 6.5	231 13.8	560 20.1	548 21.8	222 22.5	44 28.7	1 27.8	0 0.0
≥ 5000	# Rate	173 2.0	0 0.0	0 0.0	0 0.0	1 0.7	3 1.6	2 0.8	18 1.1	58 2.1	58 2.3	29 2.9	4 2.6	0 0.0	0 0.0
Unknown	# Rate	81 0.9	0 0.0	0 0.0	2 2.6	4 2.9	2 1.0	6 2.4	14 0.8	15 0.5	26 1.0	10 1.0	1 0.6	0 0.0	1 200.0

¹ Very Low Birthweight: < 1,500 grams or 3.3 pounds.

² Low Birthweight: < 2,500 grams or 5.5 pounds.

TECHNICAL NOTES FOR TABLE B-10
HOSPITAL PROFILES
MASSACHUSETTS OCCURRENCE BIRTHS
1991

The figures in the "Occurrence Births" column for each of the 55 birthing hospitals indicate the total number of births that occurred at each hospital as reported to the Massachusetts Department of Public Health. Percents shown in this column indicate the percentage of the total Massachusetts births occurring at each hospital.

Each race/ethnicity category by individual hospital should be regarded as a separate entity.

Example: Brigham and Women's Hospital reported 9,453 occurrence births in 1991.

- Of these, 64.2% were to white non-Hispanic women, 16.3% were to black non-Hispanic women, 14.0% were to Hispanic women, etc.
- Of the 64.2% of births to white non-Hispanic mothers, 26.9% of these babies were delivered by Caesarean Section (1,075 primary C-Section deliveries and 544 repeat C-Section deliveries).
- The percent of low birthweight (less than 2,500 grams) babies born to white non-Hispanic mothers was 11.1%.
- Adequate prenatal care was received by 96.1% of white non-Hispanic mothers at Brigham and Women's Hospital. The adequacy of prenatal care variable is based on two factors: the month a woman registers for prenatal care and the total number of visits for prenatal care. Please refer to the definitions at the beginning of this section for further explanation.
- Of the white non-Hispanic mothers who gave birth at Brigham and Women's Hospital, 74.1% breast-fed their babies and 90.8% paid for their babies' deliveries by private insurer (Blue Cross/Blue Shield, etc.).

Additional Notes:

1. Percents may not sum to 100.0 due to rounding.
2. --Zero events are indicated by dashes.
3. Calculations based on fewer than 10 births per race category in all columns other than Method of Delivery are indicated by "***" across the entire row. In these cases, only the percent of births by race of mother is presented.
4. Calculations based on 15 or fewer Caesarean-section births per race category are indicated by "***" in the three Method of Delivery columns.

TABLE B-10
HOSPITAL PROFILES
MASSACHUSETTS OCCURRENCE BIRTHS
1991

HOSPITAL NAME City/Town	Occurrence Births	Percent of Births by Mother's Race/Ethnicity	Method of Delivery			% Low Birth Weight	% Adequate Prenatal Care	% Mothers Breast Feeding	Delivery Method of Payment			
			Caesarean						% Private	% Public Assistance	% Free & Self Paid	
			% Total	# Primary	# Repeat							
ADOISON GILBERT Gloucester	247 0.3%	TOTAL	25.9	42	22	2.4	87.0	54.7	66.0	30.8	1.2	
		White Non-Hisp.	25.1	39	22	2.5	87.2	53.9	66.3	30.5	1.2	
		Black Non-Hisp.	**	**	**	**	**	**	**	**	**	**
		Hispanic	--	--	--	--	--	--	--	--	--	--
		Asian	**	**	**	**	**	**	**	**	**	**
		Other	--	--	--	--	--	--	--	--	--	--
Unknown	--	--	--	--	--	--	--	--	--	--		
ANNA JAKUES Newburyport	883 1.0%	TOTAL	17.9	103	55	2.9	87.0	62.7	75.3	19.8	2.6	
		White Non-Hisp.	17.3	97	52	2.8	87.2	62.2	75.9	19.4	2.4	
		Black Non-Hisp.	**	**	**	**	**	**	**	**	**	**
		Hispanic	**	**	**	**	**	**	**	**	**	**
		Asian	**	**	**	**	**	**	**	**	**	**
		Other	**	**	**	**	**	**	**	**	**	**
Unknown	0.3	**	**	**	**	**	**	**	**	**		
ATLANTICARE MEDICAL CENTER Lynn		TOTAL										
		White Non-Hisp.										
		Black Non-Hisp.										
		Hispanic										
		Asian										
		Other										
BAYSTATE MEDICAL CENTER Springfield	6,060 6.8%	TOTAL	23.4	885	534	8.6	71.8	51.0	59.4	38.3	2.1	
		White Non-Hisp.	24.7	606	388	7.5	78.5	57.0	75.9	21.7	2.1	
		Black Non-Hisp.	20.3	94	54	11.5	58.0	37.6	32.4	64.9	2.5	
		Hispanic	21.1	170	84	11.0	59.2	39.5	20.9	77.2	1.7	
		Asian	20.2	13	4	7.1	54.8	48.8	60.7	34.5	3.6	
		Other	**	**	**	4.5	50.0	45.5	22.7	77.3	**	**
Unknown	0.1	**	**	**	**	**	**	**	**	**		
BERKSHIRE MEDICAL CENTER Pittsfield	1,257 1.4%	TOTAL	21.2	165	102	4.7	70.8	61.4	72.9	24.4	1.6	
		White Non-Hisp.	20.8	151	96	4.5	71.5	61.8	75.0	22.3	1.7	
		Black Non-Hisp.	**	**	**	17.1	48.6	45.7	20.0	80.0	**	--
		Hispanic	**	**	**	--	61.1	55.6	50.0	50.0	**	--
		Asian	**	**	**	**	**	**	**	**	**	**
		Other	**	**	**	**	**	**	**	**	**	**
Unknown	0.2	**	**	**	**	**	**	**	**	**		
BETH ISRAEL Boston	5,420 6.0%	TOTAL	20.4	755	349	5.8	80.3	71.7	78.6	20.7	0.6	
		White Non-Hisp.	22.3	526	238	5.0	89.2	78.0	92.8	6.8	0.5	
		Black Non-Hisp.	17.2	120	63	9.0	57.2	61.2	51.7	47.1	0.8	
		Hispanic	17.8	34	22	3.8	62.4	76.4	53.5	45.5	0.6	
		Asian	16.0	61	23	6.1	80.8	50.8	57.4	41.4	1.1	
		Other	**	**	**	6.2	67.5	65.0	68.7	30.0	1.2	
Unknown	0.3	**	**	**	6.7	93.3	60.0	80.0	20.0	--		

**TABLE B-10 (continued)
HOSPITAL PROFILES
MASSACHUSETTS OCCURRENCE BIRTHS
1991**

HOSPITAL NAME City/Town	Occurrence Births	Percent of Births by Mother's Race/Ethnicity	Method of Delivery			% Low Birth Weight	% Adequate Prenatal Care	% Mothers Breast Feeding	Delivery Method of Payment				
			Caesarean		% Private				% Public Assistance	% Free & Self Paid			
			% Total	# Primary							# Repeat		
BEVERLY Beverly	2,279 2.5%	TOTAL	100.0	18.7	254	173	3.1	79.1	67.3	85.1	11.6	1.6	
		White Non-Hisp.	93.7	19.0	244	161	3.0	80.2	67.1	87.3	9.5	1.7	
		Black Non-Hisp.	1.4	**	**	**	6.5	61.3	51.6	45.2	45.2	**	**
		Hispanic	2.6	**	**	**	**	55.0	77.4	36.7	61.7	**	**
		Asian	2.1	**	**	**	8.3	70.8	62.5	77.1	16.7	**	**
		Other	0.2	**	**	**	**	**	**	**	**	**	**
Unknown	**	**	**	**	**	**	**	**	**	**	**	**	
BOSTON CITY Boston	1,675 1.9%	TOTAL	100.0	18.9	212	104	12.5	40.5	33.9	27.3	66.1	6.6	
		White Non-Hisp.	15.7	19.8	33	19	14.8	41.1	16.7	39.2	55.5	5.3	
		Black Non-Hisp.	60.0	19.6	137	60	13.6	38.5	32.5	28.4	64.2	7.5	
		Hispanic	20.1	16.7	32	24	8.0	46.7	55.1	17.6	78.0	4.5	
		Asian	4.2	**	**	**	10.0	37.1	15.7	14.3	75.7	10.0	
		Other	0.1	**	**	**	**	**	**	**	**	**	**
Unknown	**	**	**	**	**	**	**	**	**	**	**		
BRIGHAM AND WOMEN'S Boston	9,453 10.5%	TOTAL	100.0	24.4	1,508	775	11.1	91.4	71.4	77.6	15.0	4.6	
		White Non-Hisp.	64.2	26.9	1,075	544	11.1	96.1	74.1	90.8	4.7	1.4	
		Black Non-Hisp.	16.3	20.3	209	101	14.9	80.7	56.8	62.7	30.9	4.5	
		Hispanic	14.0	20.4	159	106	7.9	83.0	73.1	33.2	46.0	19.5	
		Asian	4.6	15.7	51	16	6.9	90.0	77.5	84.0	8.1	3.7	
		Other	0.8	27.8	13	7	5.4	82.4	86.5	70.3	8.1	13.5	
Unknown	**	**	**	**	**	**	**	**	**	**	**		
BROCKTON Brockton	1,393 1.6%	TOTAL	100.0	21.2	182	114	4.8	70.6	45.9	61.7	36.0	1.1	
		White Non-Hisp.	81.0	21.9	151	96	4.4	76.8	46.9	70.1	28.2	0.7	
		Black Non-Hisp.	7.6	17.3	11	7	7.7	36.6	34.6	26.0	70.2	1.9	
		Hispanic	5.1	**	**	**	4.2	40.8	46.5	16.9	80.3	1.4	
		Asian	1.7	**	**	**	4.2	70.8	33.3	54.2	41.7	**	
		Other	4.6	**	**	**	6.2	51.6	53.1	23.4	67.2	6.2	
Unknown	0.1	**	**	**	**	**	**	**	**	**	**		
BURBANK Fitchburg	947 1.0%	TOTAL	100.0	12.7	74	46	4.2	75.7	54.4	56.9	41.9	0.5	
		White Non-Hisp.	81.1	12.9	63	36	3.6	80.1	56.6	63.4	35.5	0.7	
		Black Non-Hisp.	4.2	**	**	**	10.0	75.0	42.5	15.0	82.5	**	**
		Hispanic	8.8	**	**	**	7.2	56.6	55.4	18.1	80.7	**	**
		Asian	5.0	**	**	**	4.3	42.6	25.5	61.7	38.3	**	**
		Other	0.8	**	**	**	**	**	**	**	**	**	**
Unknown	0.1	**	**	**	**	**	**	**	**	**	**		
CAMBRIDGE Cambridge	989 1.1%	TOTAL	100.0	17.2	108	62	5.4	57.6	58.2	20.6	72.0	5.1	
		White Non-Hisp.	40.2	19.1	54	22	4.5	58.0	41.7	34.2	54.0	6.5	
		Black Non-Hisp.	16.3	22.6	26	10	7.5	60.9	63.4	17.4	78.9	3.7	
		Hispanic	37.3	13.6	22	28	5.4	58.8	75.6	7.6	88.3	3.5	
		Asian	5.4	**	**	**	3.8	39.6	45.3	18.9	73.6	7.5	
		Other	0.6	**	**	**	**	**	**	**	**	**	**
Unknown	0.2	**	**	**	**	**	**	**	**	**	**		

TABLE B-10 (continued)
HOSPITAL PROFILES
MASSACHUSETTS OCCURRENCE BIRTHS
1991

HOSPITAL NAME City/Town	Occurrence Births	Percent of Births by Mother's Race/Ethnicity	Method of Delivery			% Low Birth Weight	% Adequate Prenatal Care	% Mothers Breast Feeding	Delivery Method of Payment			
			Cesarean						% Private	% Public Assistance	% Free & Self Paid	
			% Total	# Primary	# Repeat							
CAPE COD Barnstable	1,248 1.4%	TOTAL	100.0	23.8	166	131	4.0	82.6	66.3	62.1	33.2	4.2
		White Non-Hisp.	90.1	23.6	149	117	3.7	83.9	67.3	66.4	28.7	4.3
		Black Non-Hisp.	3.4	**	**	**	2.3	55.8	30.2	18.6	76.7	4.7
		Hispanic	2.9	**	**	**	8.3	80.6	83.3	8.3	88.9	2.8
		Asian	1.4	**	**	**	5.9	94.1	76.5	64.7	29.4	5.9
		Other	2.1	**	**	**	11.5	65.4	50.0	19.2	80.8	**
		Unknown	0.1	**	**	**	**	**	**	**	**	**
CHARLTON MEMORIAL Fall River	1,942 2.2%	TOTAL	100.0	22.0	273	155	6.0	78.2	32.6	64.5	34.3	1.1
		White Non-Hisp.	95.2	22.2	261	149	5.8	79.5	33.3	66.7	32.1	1.1
		Black Non-Hisp.	1.6	**	**	**	9.4	50.0	21.9	25.0	75.0	**
		Hispanic	0.9	**	**	**	5.9	76.5	17.6	17.6	82.4	**
		Asian	2.2	**	**	**	11.9	40.5	11.9	14.3	83.3	2.4
		Other	0.1	**	**	**	**	**	**	**	**	**
		Unknown	0.1	**	**	**	**	**	**	**	**	**
COOLEY DICKINSON Northampton	1,145 1.3%	TOTAL	100.0	20.7	129	108	2.3	84.2	73.9	80.3	18.5	1.1
		White Non-Hisp.	87.9	20.5	108	98	2.0	87.7	74.3	84.2	15.2	0.5
		Black Non-Hisp.	1.5	**	**	**	5.9	35.3	70.6	64.7	35.3	**
		Hispanic	5.2	28.8	9	8	1.7	59.3	69.5	37.3	61.0	1.7
		Asian	5.1	**	**	**	6.9	65.5	74.1	63.8	25.9	10.3
		Other	0.4	**	**	**	**	**	**	**	**	**
		Unknown	**	**	**	**	**	**	**	**	**	**
EMERSON Concord	1,687 1.9%	TOTAL	100.0	19.4	201	127	3.1	92.6	82.2	86.8	11.4	1.3
		White Non-Hisp.	93.6	19.4	191	116	2.9	92.8	81.9	87.7	10.7	1.2
		Black Non-Hisp.	1.1	**	**	**	21.1	84.2	68.4	42.1	57.9	**
		Hispanic	1.4	**	**	**	13.0	87.0	87.0	65.2	34.8	**
		Asian	3.4	**	**	**	**	93.0	93.0	87.7	7.0	5.3
		Other	0.5	**	**	**	**	**	**	**	**	**
		Unknown	0.1	**	**	**	**	**	**	**	**	**
FAIRVIEW Great Barrington	169 0.2%	TOTAL	100.0	29.0	35	14	5.3	72.2	62.1	64.5	31.4	3.0
		White Non-Hisp.	92.9	31.2	35	14	5.7	73.9	61.8	65.0	30.6	3.2
		Black Non-Hisp.	1.8	**	**	**	**	**	**	**	**	**
		Hispanic	3.0	**	**	**	**	**	**	**	**	**
		Asian	0.6	**	**	**	**	**	**	**	**	**
		Other	0.6	**	**	**	**	**	**	**	**	**
		Unknown	1.2	**	**	**	**	**	**	**	**	**
FALMOUTH Falmouth	592 0.7%	TOTAL	100.0	25.8	90	63	2.2	91.2	84.8	57.1	40.5	2.0
		White Non-Hisp.	92.1	25.0	80	56	2.4	91.6	85.7	59.4	38.2	2.0
		Black Non-Hisp.	4.9	**	**	**	**	93.1	69.0	17.2	79.3	3.4
		Hispanic	1.9	**	**	**	**	72.7	90.9	36.4	63.6	**
		Asian	0.8	**	**	**	**	**	**	**	**	**
		Other	0.3	**	**	**	**	**	**	**	**	**
		Unknown	**	**	**	**	**	**	**	**	**	**

TABLE B-10 (continued)
HOSPITAL PROFILES
MASSACHUSETTS OCCURRENCE BIRTHS
1991

HOSPITAL NAME City/Town	Occurrence Births	Percent of Births by Mother's Race/Ethnicity	Method of Delivery			% Low Birth Weight	% Adequate Prenatal Care	% Mothers Breast Feeding	Delivery Method of Payment		
			Cesarean		% Private				% Public Assistance	% Free & Self Paid	
			% Total	# Primary							# Repeat
FRAMINGHAM UNION Frammingham	2,131 2.4%	TOTAL	24.3	315	203	3.8	89.7	67.1	83.1	14.3	1.8
		White Non-Hisp.	24.1	266	180	3.7	91.5	66.8	87.7	9.9	1.6
		Black Non-Hisp.	32.0	9	7	4.0	74.0	62.0	64.0	34.0	2.0
		Hispanic	27.2	34	15	4.4	76.1	70.6	41.1	53.3	4.4
		Asian	1.9	**	**	7.6	92.5	80.0	87.5	10.0	2.5
		Other	0.4	**	**	**	**	**	**	**	**
FRANKLIN MEDICAL CENTER Greenfield	791 0.9%	TOTAL	23.8	104	84	2.3	79.1	69.0	65.4	31.7	1.1
		White Non-Hisp.	23.9	100	82	2.4	79.5	69.3	66.3	30.9	0.9
		Black Non-Hisp.	**	**	**	**	**	**	**	**	**
		Hispanic	**	**	**	--	69.2	53.8	38.5	61.5	--
		Asian	**	**	**	**	**	**	**	**	**
		Other	0.8	**	**	**	**	**	**	**	**
GODDARD MEMORIAL Stoughton	1,924 2.1%	TOTAL	23.4	292	159	4.1	63.8	48.9	69.1	29.8	1.0
		White Non-Hisp.	23.9	233	127	3.5	67.9	47.3	75.7	23.5	0.7
		Black Non-Hisp.	20.0	21	12	5.5	51.5	52.7	46.7	50.3	2.4
		Hispanic	26.6	14	9	12.2	48.9	57.8	23.3	74.4	2.2
		Asian	1.8	**	**	--	58.8	38.2	82.4	14.7	2.9
		Other	6.4	16	7	5.6	42.7	59.7	47.6	51.6	0.8
HALE Haverhill	820 0.9%	TOTAL	19.8	106	56	2.6	77.7	48.7	58.8	38.7	2.2
		White Non-Hisp.	19.8	94	43	2.7	81.1	47.5	64.0	33.4	2.3
		Black Non-Hisp.	**	**	**	--	60.0	26.7	20.0	80.0	--
		Hispanic	22.5	7	13	2.2	53.9	62.9	29.2	69.7	1.1
		Asian	1.8	**	**	--	80.0	53.3	60.0	33.3	6.7
		Other	1.1	**	**	**	**	**	**	**	**
HARRINGTON MEMORIAL Southbridge	570 0.6%	TOTAL	26.3	102	48	3.0	83.2	49.5	52.8	45.4	0.5
		White Non-Hisp.	26.2	92	39	2.4	84.0	51.0	56.6	41.6	0.6
		Black Non-Hisp.	**	**	**	**	**	**	**	**	**
		Hispanic	26.7	9	7	8.3	75.0	38.3	25.0	75.0	--
		Asian	**	**	**	**	**	**	**	**	**
		Other	**	**	**	--	--	--	--	--	**
HENRY HEYWOOD MEMORIAL Gardner	371 0.4%	TOTAL	22.1	50	32	4.6	69.8	46.1	50.9	46.1	0.5
		White Non-Hisp.	22.2	49	31	4.7	70.8	45.8	50.3	46.7	0.6
		Black Non-Hisp.	**	**	**	**	**	**	**	**	**
		Hispanic	**	**	**	**	**	**	**	**	**
		Asian	**	**	**	**	**	**	**	**	**
		Other	**	**	**	--	--	**	**	**	**

TABLE B-10 (continued)
HOSPITAL PROFILES
MASSACHUSETTS OCCURRENCE BIRTHS
1991

HOSPITAL NAME City/Town	Occurrence Births	Percent of Births by Mother's Race/Ethnicity	Method of Delivery			% Low Birth Weight	% Adequate Prenatal Care	% Mothers Breast Feeding	Delivery Method of Payment		
			Caesarean		% Private				% Public Assistance	% Free & Self Paid	
			% Total	# Primary							# Repeat
HOLY FAMILY Methuen	1,033 1.2 %	TOTAL	100.0	143	118	3.2	71.6	54.2	65.9	28.7	4.5
		White Non-Hisp.	73.7	92	92	3.3	78.4	52.0	76.6	17.2	5.1
		Black Non-Hisp.	1.5	**	**	**	18.7	43.7	31.2	62.5	6.2
		Hispanic	22.5	40	23	3.0	51.7	59.5	31.9	65.5	1.7
		Asian	1.9	**	**	5.0	80.0	85.0	80.0	10.0	10.0
		Other	0.3	**	**	**	**	**	**	**	**
		Unknown	0.1	**	**	**	**	**	**	**	**
HUNT MEMORIAL Danvers ²											
JORDAN Plymouth	961 1.1 %	TOTAL	100.0	125	82	3.1	81.4	64.7	71.7	26.6	0.8
		White Non-Hisp.	94.1	117	80	2.7	82.4	64.9	72.6	25.7	0.9
		Black Non-Hisp.	2.0	**	**	21.1	57.9	52.6	42.1	57.9	**
		Hispanic	0.9	**	**	**	**	**	**	**	**
		Asian	0.8	**	**	**	**	**	**	**	**
		Other	1.4	**	**	7.7	69.2	76.9	46.2	53.8	**
		Unknown	0.8	**	**	**	**	**	**	**	**
LAWRENCE GENERAL Lawrence	1,844 2.1 %	TOTAL	100.0	263	180	3.7	90.5	53.7	51.1	45.7	1.5
		White Non-Hisp.	52.0	165	80	2.7	94.2	45.2	80.1	16.2	2.0
		Black Non-Hisp.	1.2	**	**	17.4	69.6	43.5	26.1	63.6	4.3
		Hispanic	43.1	87	89	4.5	86.4	65.1	16.2	82.1	0.4
		Asian	3.1	**	**	3.5	96.5	45.6	57.9	29.8	7.0
		Other	0.5	**	**	**	90.0	50.0	70.0	20.0	10.0
		Unknown	0.1	**	**	**	**	**	**	**	**
LEOMINSTER Leominster	1,414 1.6 %	TOTAL	100.0	202	113	4.1	78.3	60.2	66.9	30.6	1.2
		White Non-Hisp.	81.0	162	87	3.7	81.5	60.8	75.1	22.6	1.1
		Black Non-Hisp.	5.0	10	5	10.0	61.4	50.0	20.0	77.1	**
		Hispanic	10.8	22	16	4.6	69.3	61.4	30.7	68.0	1.3
		Asian	2.7	**	**	5.3	52.6	55.3	63.2	31.6	5.3
		Other	0.5	**	**	**	**	**	**	**	**
		Unknown	**	**	**	**	**	**	**	**	**
LEONARD MORSE Natick	877 1.0 %	TOTAL	100.0	119	85	3.3	92.8	66.5	84.2	13.2	1.0
		White Non-Hisp.	93.2	111	73	3.5	93.4	66.5	86.2	11.1	1.1
		Black Non-Hisp.	1.1	**	**	**	90.0	80.0	60.0	40.0	**
		Hispanic	3.5	**	**	**	80.6	67.7	35.5	61.3	**
		Asian	1.7	**	**	**	86.7	60.0	86.7	13.3	**
		Other	0.5	**	**	**	**	**	**	**	**
		Unknown	**	**	**	**	**	**	**	**	**

TABLE B-10 (continued)
HOSPITAL PROFILES
MASSACHUSETTS OCCURRENCE BIRTHS
1991

HOSPITAL NAME City/Town	Occurrence Births	Percent of Births by Mother's Race/Ethnicity	Method of Delivery			% Low Birth Weight	% Adequate Prenatal Care	% Mothers Breast Feeding	Delivery Method of Payment			
			Caesarean						% Private	% Public Assistance	% Free & Self Paid	
			% Total	# Primary	# Repeat							
LOWELL GENERAL Lowell	2,504 2.8%	TOTAL	100.0	278	172	5.1	78.4	43.8	62.9	35.9	1.0	
		White Non-Hisp.	69.4	215	134	4.7	85.8	47.6	75.7	23.1	1.0	
		Black Non-Hisp.	2.0	**	**	4.0	56.0	52.0	40.0	56.0	2.0	
		Hispanic	12.1	29	18	4.6	65.0	43.2	20.8	78.2	1.0	
		Asian	16.3	28	17	7.3	59.7	26.9	42.5	56.0	1.0	
		Other	0.2	**	**	**	**	**	**	**	**	
Unknown	--	--	--	--	--	--	--	--	--	--		
MALDEN Malden	1,820 2.0%	TOTAL	100.0	306	171	3.7	77.4	43.4	70.1	27.4	2.4	
		White Non-Hisp.	82.3	271	146	3.5	82.6	42.0	76.8	20.9	2.1	
		Black Non-Hisp.	4.2	15	9	10.4	59.7	61.0	49.4	49.4	1.3	
		Hispanic	5.6	6	11	3.9	51.0	54.9	25.5	69.6	4.9	
		Asian	6.9	11	5	2.4	48.4	35.7	41.3	54.0	4.8	
		Other	1.0	**	**	5.6	72.2	72.2	50.0	44.4	5.6	
Unknown	--	--	--	--	--	--	--	--	--	--		
MARTHA'S VINEYARD Oak Bluffs	129 0.1%	TOTAL	100.0	21	6	2.3	79.8	79.8	73.6	20.9	4.7	
		White Non-Hisp.	97.7	21	6	2.4	81.0	79.4	74.6	19.8	4.8	
		Black Non-Hisp.	0.8	**	**	**	**	**	**	**	**	**
		Hispanic	0.8	**	**	**	**	**	**	**	**	**
		Asian	--	--	--	--	--	--	--	--	--	--
		Other	0.8	**	**	**	**	**	**	**	**	**
Unknown	--	--	--	--	--	--	--	--	--	--		
MARY LANE Ware	190 0.2%	TOTAL	100.0	18	23	4.7	73.7	44.2	70.0	27.4	2.6	
		White Non-Hisp.	96.8	17	22	4.9	74.5	44.0	70.7	26.6	2.7	
		Black Non-Hisp.	0.5	**	**	**	**	**	**	**	**	**
		Hispanic	0.5	**	**	**	**	**	**	**	**	**
		Asian	1.1	**	**	**	**	**	**	**	**	**
		Other	1.1	**	**	**	**	**	**	**	**	**
Unknown	--	--	--	--	--	--	--	--	--	--		
MELROSE- WAKEFIELD Melrose	1,148 1.3%	TOTAL	100.0	201	154	2.6	96.6	46.3	84.8	11.5	1.9	
		White Non-Hisp.	96.3	194	152	2.6	96.8	45.1	85.1	11.7	1.8	
		Black Non-Hisp.	0.7	**	**	**	**	**	**	**	**	**
		Hispanic	1.1	**	**	--	92.3	61.5	69.2	7.7	7.7	7.7
		Asian	1.7	**	**	--	89.5	89.5	94.7	--	--	--
		Other	0.2	**	**	**	**	**	**	**	**	**
Unknown	0.1	**	**	**	**	**	**	**	**	**		
MILFORD- WHITINSVILLE Milford	462 0.5%	TOTAL	100.0	74	46	3.9	51.1	45.5	70.6	27.5	1.7	
		White Non-Hisp.	94.4	70	44	3.9	52.3	44.3	71.3	26.6	1.8	
		Black Non-Hisp.	0.2	**	**	**	**	**	**	**	**	**
		Hispanic	3.0	**	**	--	14.3	57.1	42.9	57.1	--	--
		Asian	1.5	**	**	**	**	**	**	**	**	**
		Other	0.9	**	**	**	**	**	**	**	**	**
Unknown	--	--	--	--	--	--	--	--	--	--		

TABLE B-10 (continued)
HOSPITAL PROFILES
MASSACHUSETTS OCCURRENCE BIRTHS
1991

HOSPITAL NAME City/Town	Occurrence Births	Percent of Births by Mother's Race/Ethnicity	Method of Delivery			% Low Birth Weight	% Adequate Prenatal Care	% Mothers Breast Feeding	Delivery Method of Payment		
			Caesarean						% Private	% Public Assistance	% Free & Self Paid
			% Total	# Primary	# Repeat						
MORTON Taunton	738 0.8%	TOTAL White Non-Hisp. Black Non-Hisp. Hispanic Asian Other Unknown	36.9 36.7	159 145	106 100	3.7 3.3 8.7 7.1 .. 6.2 ..	82.4 85.2 43.5 57.1 .. 75.0 ..	35.6 36.5 17.4 39.3 .. 25.0 ..	68.7 72.5 30.4 32.1 .. 31.2 ..	28.2 25.0 56.5 64.3 .. 56.2 ..	0.8 0.6 8.7
MOUNT AUBURN Cambridge	1,636 1.8%	TOTAL White Non-Hisp. Black Non-Hisp. Hispanic Asian Other Unknown	17.1 15.7 23.6 22.0	195 136 19 26	85 56 12 12	4.2 3.8 6.8 4.6 5.2 .. 3.3	83.4 86.3 72.0 74.6 81.8 .. 66.7	69.3 66.6 68.2 85.0 81.8 .. 63.3	74.1 81.2 62.1 36.8 79.2 .. 60.0	22.1 15.3 34.8 60.7 13.0 .. 30.0	1.8 1.6 1.5 3.5 2.6
NANTUCKET COTTAGE Nantucket	100 0.1%	TOTAL White Non-Hisp. Black Non-Hisp. Hispanic Asian Other Unknown	13.0	9	4	2.0 2.2	66.0 65.6	77.0 76.3	67.0 68.8	21.0 19.4	8.0 7.5
NEW ENGLAND MEMORIAL Stoneham	1,023 1.1%	TOTAL White Non-Hisp. Black Non-Hisp. Hispanic Asian Other Unknown	28.1 28.4	198 193	89 86	2.5 2.4 14.3	92.2 92.7 .. 85.7 78.6	69.7 69.5 .. 86.7 60.0	87.4 88.3 .. 71.4 64.3	8.6 7.7 .. 28.6 28.6	1.4 1.3 7.1
NEWTON- WELLESLEY Newton	3,675 4.0%	TOTAL White Non-Hisp. Black Non-Hisp. Hispanic Asian Other Unknown	17.4 17.4	413 395	209 197	2.6 2.6 2.0 5.3	92.7 92.9 92.3 79.6 92.1	74.2 73.9 92.3 71.4 76.3	93.7 94.1 89.7 69.4 92.1	2.7 2.4 7.7 12.2 5.3	1.2 1.2 .. 4.1
NORTH ADAMS REGIONAL North Adams	444 0.5%	TOTAL White Non-Hisp. Black Non-Hisp. Hispanic Asian Other Unknown	20.7 20.5	57 52	35 35	4.3 4.5	84.0 84.4 90.0	60.2 60.9 20.0	62.2 64.2 10.0	36.5 35.1 90.0	1.1 0.5

**TABLE B-10 (continued)
HOSPITAL PROFILES
MASSACHUSETTS OCCURRENCE BIRTHS
1991**

HOSPITAL NAME City/Town	Occurrence Births	Percent of Births by Mother's Race/Ethnicity	Method of Delivery			% Low Birth Weight	% Adequate Prenatal Care	% Mothers Breast Feeding	Delivery Method of Payment		
			Caesarean						% Private	% Public Assistance	% Free & Self Paid
			% Total	# Primary	# Repeat						
NORWOOD Norwood	1,150 1.3%	TOTAL	100.0	137	104	2.7	95.0	55.0	89.6	10.1	0.3
		White Non-Hisp.	97.0	128	100	2.6	95.2	54.7	90.1	9.6	0.3
		Black Non-Hisp.	1.1	**	**	15.4	92.3	53.8	84.6	15.4	**
		Hispanic	0.7	**	**	**	**	**	**	**	**
		Asian	0.9	**	**	**	80.0	60.0	60.0	40.0	**
		Other	0.3	**	**	**	**	**	**	**	**
Unknown	**	**	**	**	**	**	**	**	**	**	
PROVIDENCE Holyoke	1,455 1.6%	TOTAL	100.0	123	68	3.6	60.9	53.3	50.2	47.2	1.4
		White Non-Hisp.	69.5	102	53	2.7	67.6	55.3	67.0	30.0	1.9
		Black Non-Hisp.	1.5	**	**	4.5	50.0	36.4	13.6	86.4	**
		Hispanic	27.5	19	14	6.0	45.2	48.2	9.0	90.0	**
		Asian	1.1	**	**	**	37.5	62.5	68.7	25.0	6.2
		Other	0.3	**	**	**	**	**	**	**	**
Unknown	0.1	**	**	**	**	**	**	**	**	**	
QUINCY Quincy	928 1.0%	TOTAL	100.0	160	100	3.3	75.3	48.3	69.0	29.0	1.2
		White Non-Hisp.	92.5	154	94	3.5	76.8	47.9	70.3	27.5	1.3
		Black Non-Hisp.	1.8	**	**	**	52.9	47.1	58.8	41.2	**
		Hispanic	1.6	**	**	**	60.0	80.0	26.7	73.3	**
		Asian	2.7	**	**	4.0	56.0	36.0	68.0	32.0	**
		Other	1.4	**	**	**	61.5	61.5	46.2	53.8	**
Unknown	**	**	**	**	**	**	**	**	**	**	
SALEM Salem	2,398 2.7%	TOTAL	100.0	294	207	3.6	85.4	47.1	58.0	38.7	1.0
		White Non-Hisp.	74.6	228	159	3.4	89.8	45.6	71.9	24.8	0.9
		Black Non-Hisp.	5.8	14	18	7.1	69.3	36.4	20.0	76.4	1.4
		Hispanic	14.6	41	25	4.0	75.1	66.5	12.3	84.5	1.4
		Asian	4.3	**	**	2.9	66.3	23.1	24.0	73.1	**
		Other	0.5	**	**	**	100.0	63.6	36.4	54.5	9.1
Unknown	0.3	**	**	**	**	**	**	**	**	**	
SOUTH SHORE Weymouth	2,403 2.7%	TOTAL	100.0	331	279	2.7	94.3	67.0	94.4	4.2	1.3
		White Non-Hisp.	97.2	324	270	2.7	94.5	66.9	94.6	4.0	1.3
		Black Non-Hisp.	0.7	**	**	**	88.9	72.2	88.9	11.1	**
		Hispanic	0.4	**	**	10.0	70.0	90.0	90.0	10.0	**
		Asian	1.2	**	**	**	82.8	65.5	86.2	10.3	3.4
		Other	0.4	**	**	10.0	100.0	50.0	90.0	**	10.0
Unknown	**	**	**	**	**	**	**	**	**	**	
ST. ELIZABETH'S Boston	1,168 1.3%	TOTAL	100.0	210	106	3.7	81.7	65.8	67.3	30.7	1.5
		White Non-Hisp.	63.6	122	79	3.4	88.8	64.8	76.7	21.4	1.1
		Black Non-Hisp.	9.4	21	8	3.6	60.0	62.7	41.8	56.4	1.8
		Hispanic	15.2	30	13	3.4	71.3	82.6	41.6	56.7	1.7
		Asian	11.5	36	5	6.0	74.6	51.5	72.4	23.9	3.7
		Other	0.3	**	**	**	**	**	**	**	**
Unknown	**	**	**	**	**	**	**	**	**	**	

TABLE B-10 (continued)
HOSPITAL PROFILES
MASSACHUSETTS OCCURRENCE BIRTHS
1991

HOSPITAL NAME City/Town	Occurrence Births	Percent of Births by Mother's Race/Ethnicity	Method of Delivery			% Low Birth Weight	% Adequate Prenatal Care	% Mothers Breast Feeding	Delivery Method of Payment		
			Caesarean						% Private	% Public Assistance	% Free & Self Paid
			% Total	# Primary	# Repeat						
ST. JOSEPH'S Lowell	494 0.6%	TOTAL	28.7	74	68	3.2	78.7	46.0	85.0	9.5	2.0
		White Non-Hisp.	29.5	65	56	3.2	83.9	45.9	87.8	7.8	1.7
		Black Non-Hisp.	**	**	**	9.1	36.4	54.5	90.9	9.1	**
		Hispanic	**	**	**	**	48.1	51.9	61.9	37.0	7.4
		Asian	**	**	**	4.4	62.2	40.0	77.8	8.9	2.2
		Other	**	**	**	**	**	**	**	**	**
ST. LUKE'S New Bedford	1,928 2.2%	TOTAL	22.1	256	172	3.8	72.4	36.9	52.5	45.3	1.4
		White Non-Hisp.	22.3	206	133	3.3	78.1	37.7	61.1	36.4	1.6
		Black Non-Hisp.	**	**	**	5.3	53.3	20.0	29.3	69.3	1.3
		Hispanic	17.9	16	21	7.2	45.4	29.5	11.1	87.4	1.0
		Asian	**	**	**	**	70.0	60.0	70.0	30.0	**
		Other	25.7	19	10	4.4	57.5	32.7	25.7	73.5	**
ST. MARGARET'S Boston	2,608 2.9%	TOTAL	31.8	556	274	19.3	73.4	43.9	69.0	38.7	1.7
		White Non-Hisp.	35.1	404	203	19.8	81.8	41.1	72.7	25.3	1.3
		Black Non-Hisp.	26.1	76	31	20.0	59.6	50.0	36.6	61.2	2.2
		Hispanic	28.5	31	24	23.8	56.4	53.4	19.7	78.2	1.6
		Asian	20.0	18	6	12.5	52.5	24.2	32.5	65.8	1.7
		Other	23.9	27	10	11.0	54.8	62.6	36.1	68.1	4.5
ST. VINCENT Worcester	2,937 3.3%	TOTAL	13.8	263	142	2.7	85.9	57.8	80.5	18.4	0.9
		White Non-Hisp.	13.7	213	121	2.3	88.6	58.1	86.2	12.5	1.0
		Black Non-Hisp.	**	**	**	1.4	66.2	47.3	39.2	39.2	**
		Hispanic	13.4	25	13	4.9	75.4	60.9	39.8	60.2	**
		Asian	15.0	15	4	5.5	73.2	49.6	71.7	27.6	0.8
		Other	**	**	**	**	76.9	61.5	84.6	15.4	**
STURDY MEMORIAL Attleboro	890 1.0%	TOTAL	25.3	128	97	2.6	79.4	50.7	71.0	27.4	1.0
		White Non-Hisp.	25.2	117	88	2.3	80.7	50.6	72.8	25.6	1.0
		Black Non-Hisp.	**	**	**	9.1	63.6	36.4	18.2	81.8	**
		Hispanic	**	**	**	3.8	61.5	61.5	50.0	50.0	**
		Asian	**	**	**	3.1	65.6	46.9	65.6	31.2	3.1
		Other	**	**	**	**	**	**	**	**	**
TOBEY Wareham	476 0.5%	TOTAL	18.5	64	34	5.0	91.6	67.6	66.2	29.8	2.1
		White Non-Hisp.	18.6	52	32	4.6	92.5	69.5	68.1	27.7	2.2
		Black Non-Hisp.	**	**	**	**	**	**	**	**	**
		Hispanic	**	**	**	**	**	**	**	**	**
		Asian	**	**	**	**	**	**	**	**	**
		Other	**	**	**	23.1	69.2	15.4	23.1	76.9	**
Unknown	**	**	**	**	**	**	**	**	**	**	

TABLE B-10 (continued)
HOSPITAL PROFILES
MASSACHUSETTS OCCURRENCE BIRTHS
1991

HOSPITAL NAME City/Town	Occurrence Births	Percent of Births by Mother's Race/Ethnicity	Method of Delivery			% Low Birth Weight	% Adequate Prenatal Care	% Mothers Breast Feeding	Delivery Method of Payment		
			% Total	# Primary	# Repeat				% Private	% Public Assistance	% Free & Self Paid
WALTHAM-WESTON Waltham	550 0.6%	TOTAL	100.0	57	50	3.8	82.9	51.1	70.7	26.9	2.0
		White Non-Hisp.	79.6	36	45	3.4	86.5	49.3	75.6	22.1	1.8
		Black Non-Hisp.	4.7	**	**	3.8	65.4	65.4	65.4	34.6	**
		Hispanic	10.4	12	4	7.0	61.4	47.4	33.3	63.2	3.5
		Asian	4.9	**	**	3.7	85.2	74.1	74.1	22.2	3.7
		Other	0.4	**	**	**	**	**	**	**	**
WINCHESTER Winchester	1,975 2.2%	TOTAL	100.0	314	231	3.3	89.1	51.7	86.8	10.6	1.2
		White Non-Hisp.	94.6	295	215	3.3	89.7	50.9	87.7	9.9	1.1
		Black Non-Hisp.	0.6	**	**	8.3	75.0	75.0	66.7	33.3	**
		Hispanic	1.8	**	**	8.3	77.8	38.9	52.8	44.4	2.8
		Asian	2.6	6	9	**	80.8	80.8	82.7	5.8	5.8
		Other	0.4	**	**	**	**	**	**	**	**
WORCESTER HAHNEMANN Worcester ¹		TOTAL	100.0								
		White Non-Hisp.	83.3								
		Black Non-Hisp.	4.3								
		Hispanic	9.4								
		Asian	2.5								
		Other	0.4								
WORCESTER MEMORIAL Worcester	3,869 4.3%	TOTAL	100.0	529	356	11.1	89.6	54.7	68.5	28.0	3.3
		White Non-Hisp.	83.3	451	311	10.4	92.1	57.1	77.3	19.4	3.3
		Black Non-Hisp.	4.3	23	14	16.9	76.5	37.3	29.5	63.9	6.6
		Hispanic	9.4	36	28	14.2	78.4	47.7	16.2	80.0	3.3
		Asian	2.5	15	2	12.6	72.6	28.4	38.9	60.0	1.1
		Other	0.4	**	**	18.7	87.5	68.7	68.7	31.2	**
ALL OTHER HOSPITALS, BIRTHING CENTERS, AT HOME, EN ROUTE, OTHER, UNKNOWN Statewide	490 0.5%	TOTAL	100.0	8	1	9.2	54.6	69.5	46.0	24.9	23.3
		White Non-Hisp.	73.5	**	**	5.8	63.9	81.4	53.6	14.4	29.2
		Black Non-Hisp.	9.6	**	**	19.1	25.5	38.3	23.4	70.2	4.3
		Hispanic	6.7	**	**	24.2	45.5	48.5	27.3	63.6	9.1
		Asian	5.3	**	**	19.2	30.8	19.2	34.6	50.0	3.8
		Other	1.0	**	**	**	**	**	**	**	**
TOTAL	89,610 100.0%	TOTAL	100.0	12,425	7,483	5.8	81.3	58.2	70.5	26.3	2.1
		White Non-Hisp.	78.1	9,964	6,079	5.1	85.7	59.2	79.4	17.8	1.7
		Black Non-Hisp.	7.5	927	474	11.6	61.5	49.6	43.7	52.2	3.3
		Hispanic	9.5	992	697	7.1	67.2	59.5	25.5	69.2	4.6
		Asian	3.7	395	150	6.1	71.2	50.5	60.0	35.7	2.8
		Other	1.1	135	76	6.5	63.0	58.7	44.6	50.3	3.2
TOTAL		TOTAL	100.0	12	7	5.5	60.9	41.4	62.5	18.0	2.3
		White Non-Hisp.	78.1	9,964	6,079	5.1	85.7	59.2	79.4	17.8	1.7
		Black Non-Hisp.	7.5	927	474	11.6	61.5	49.6	43.7	52.2	3.3
		Hispanic	9.5	992	697	7.1	67.2	59.5	25.5	69.2	4.6
		Asian	3.7	395	150	6.1	71.2	50.5	60.0	35.7	2.8
		Other	1.1	135	76	6.5	63.0	58.7	44.6	50.3	3.2

¹ The maternity unit closed on June 30, 1990.

DEATHS

SECTION C

DEATHS

Massachusetts resident deaths remained stable from 1990 (53,008 deaths) to 1991 (53,010 deaths). The 1991 rate of deaths per 1,000 population remained the same as the 1990 death rate -- 8.8. As with live births, deaths to Massachusetts residents include all deaths to Massachusetts residents regardless of the state in which they occurred. Most data presented in this section are resident data. Occurrence data are used only for medical examiner data.

DEATHS BY RACE

From 1990 to 1991, the number of deaths by race remained relatively constant with white residents comprising 95.8% of total deaths in Massachusetts.

The collection procedures for race information on death certificates, and the subsequent completeness of the information, is substantially different from that collected on birth certificates. Race and ethnicity information with natality data is collected as part of the confidential, statistical portion of the birth record, which is not required for legal registration. This may result in problems with parental refusals to provide the information or other respondent problems. Race and Hispanic ethnicity information on death certificates, as with all the other information collected as part of the death certificate registration process, is part of the mandatory, legal record. In virtually all cases with information on the death record, missing or unknown information is the result of a case in which the decedent is badly decomposed or otherwise unidentifiable, rather than any traditional reasons for missing or unknown information on a data collection instrument. Prior to 1989, only a race question was included on death certificates. A separate item on Hispanic origin was added to the death record beginning January 1, 1989. This item asks whether the decedent was of Hispanic origin. If answered affirmatively, then specific Hispanic origin must be indicated (e.g., Puerto Rican, Dominican, Cuban, etc.).

DEATHS BY AGE

Persons 75 years of age or older accounted for 55.6% of deaths. The percent of deaths to residents in this age group vary widely by race and sex.

SEX	RACE	% OF DEATHS UNDER AGE 75	% OF DEATHS 75 YEARS AND OLDER
MALE	WHITE	54.1	45.9
	BLACK	81.4	18.6
	TOTAL	55.6	44.4
FEMALE	WHITE	32.9	67.1
	BLACK	61.2	38.8
	TOTAL	34.1	65.9
TOTAL	WHITE	43.0	57.0
	BLACK	72.4	27.6
	TOTAL	44.4	55.6

DEATHS BY PLACE OF OCCURRENCE

Between 1990 and 1991, there was little variation in the sites where deaths occurred. The data are presented below:

SITE	% OF DEATHS 1991	% OF DEATHS 1990
HOSPITAL	58.8	61.7
AT HOME	18.5	17.0
NURSING OR REST HOME	18.4	16.6
EN ROUTE TO HOSPITAL OR DEAD ON ARRIVAL	3.3	3.6
UNKNOWN ¹	1.0	1.1
TOTAL	100.0	100.0

DEATHS BY CAUSE

Cause of death statistics in this report are based on the Ninth Revision of the International Classification of Diseases (ICD-9). The methodology of coding cause of death from death certificates is consistent nationally, using the Automated Classification of Medical Entities (ACME), developed by the National Center for Health Statistics (NCHS). The ACME system requires every disease or condition mentioned on the record to be coded. The underlying cause is then selected by a computer program which incorporates the ICD-9 rules and conventions. Cause of death information in this report is based on underlying cause, except where otherwise noted.

In this section, three tables (C-5, C-6, and C-7) present data based on multiple conditions rather than underlying cause data. These tables, extending the utility of mortality data, are presented to illustrate the use of multiple cause data. This is particularly true when utilizing mortality data as a method of surveillance. For example, in 1991 there were 17,098 deaths resulting from heart disease as an underlying cause of death. However, an additional 11,187 deaths occurred in which heart disease was not the underlying cause but included heart disease as a mentioned condition, thus increasing the utilization of the mortality file as a surveillance data base for heart disease.

Table C-7 demonstrates the ability of multiple cause data to enhance the function of mortality data as a morbidity tool in cases of diseases that are not traditional underlying causes of death. For example, 1,241 deaths had diabetes listed as an underlying cause, but an additional 3,083 certificates had diabetes listed as a mentioned condition, thus increasing the ability to determine the prevalence of diabetes in the population.

¹ Unknown includes prison or other institutions and all other places.

The five leading causes of death differ by race. In 1991, heart disease, cancer, and diseases of the respiratory system rank as the first three leading causes of death among white and black Massachusetts residents. However, stroke and pneumonia and influenza continue to rank as the fourth and fifth leading causes of death for white Massachusetts residents, whereas AIDS and suicide and homicide rank as the fourth and fifth leading causes for black residents.

WHITE				BLACK		
RANK	CAUSE	#	%	CAUSE	#	%
1	HEART DISEASE	16,609	32.7	HEART DISEASE	419	22.2
2	CANCER	13,292	26.2	CANCER	409	21.7
3	DISEASES OF THE RESPIRATORY SYSTEM	5,044	9.9	DISEASES OF THE RESPIRATORY SYSTEM	125	6.6
4	STROKE	3,152	6.2	AIDS	118	6.2
5	PNEUMONIA & INFLUENZA	2,251	4.6	SUICIDE & HOMICIDE	112	5.9
6	COPD	2,056	4.0	STROKE	103	5.5
7	DIABETES	1,163	2.3	DIABETES	69	3.7
8	SUICIDE & HOMICIDE	636	1.3	PNEUMONIA & INFLUENZA	61	3.2
9	CIRRHOSIS	575	1.1	MOTOR VEHICLE DEATHS	41	2.2
10	MOTOR VEHICLE DEATHS	569	1.1	COPD	30	1.6
	ALL OTHER CAUSES ¹	5,400	10.6	ALL OTHER CAUSES	400	21.2
	TOTAL	50,814	100.0	TOTAL	1,887	100.0

ACQUIRED IMMUNE DEFICIENCY SYNDROME (AIDS)

The Ninth Revision of the International Classification of Diseases was developed before the identification of AIDS. Classification of this disease and related diseases has evolved since 1981. The deaths presented in Table C-10A and Table C-10B were coded by using the most current schedule, which began with 1987 data. Comparison data prior to 1987 are not available.

DEATHS CERTIFIED BY MEDICAL EXAMINERS

The total number of deaths certified by medical examiners again decreased, from 6,719 in 1990 to 5,541 in 1991. Of the deaths certified by medical examiners, 60.7% were reported as a result of natural causes. The percentage of deaths due to natural causes (i.e., non-injury related causes) certified by medical examiners varies widely by county, from a high of 81.0% in Dukes County to a low of 45.4% in Suffolk County. Norfolk County had the greatest percentage of deaths (21.4%) that were referred to medical examiners, but with the certification retained by the attending physician, while the highest number of such deaths was in Middlesex County with 2,010 deaths.

¹ All Other Causes includes intentional and unintentional injuries and all other causes not specifically mentioned above.

DEFINITIONS IMPORTANT FOR THIS SECTION INCLUDE:

AGE-ADJUSTED RATE

A procedure for adjusting rates, designed to minimize the effects of differences in age distribution when comparing rates for different populations. This procedure is accomplished by the computational process known as age standardization, whereby mortality statistics are adjusted to a reference population. For this publication, the reference population is the 1940 U.S. population, the same as used by the National Center for Health Statistics. The result of the process is a summary index that can be used to compare rates of different populations throughout the nation and over time.

CAUSE OF DEATH

The disease or injury that initiated the series of events leading to death, or the circumstances of the unintentional or intentional injury that resulted in the death.

DEATH CERTIFICATE

A vital record signed by a licensed physician that includes cause of death, decedent's name, sex, birth date, place of residence, and place of occurrence.

INTERNATIONAL CLASSIFICATION OF DISEASES, NINTH REVISION

The International Classification of Disease (ICD) classifies mortality information for statistical purposes. The ICD was first used in 1900 and has since been revised about every 10 years. The Ninth Revision, published in 1977, is used to code mortality data beginning with 1979.

MISER

The Massachusetts Institute for Social and Economic Research. This research institute, located at the University of Massachusetts in Amherst, produces the official population estimates and projections for the Commonwealth.

OCCURRENCE DEATH

Occurrence deaths include all deaths that occur within the state, including deaths of non-residents. An interstate exchange agreement among the 50 states and Canada provides for exchanges of copies of birth and death records. These records are used for statistical purposes only, and allow each state or province to track the births and deaths of residents.

RACE

For death records, race is provided by the death record informant (for example, spouse or next of kin).

RESIDENT DEATH

The death of a person whose usual place of residence or permanent address (as reported by the informant) is in one of the 351 cities or towns of Massachusetts, regardless of where the death took place. Unless otherwise noted, all data in this publication are resident data. An interstate exchange agreement among the 50 states and Canada provides for exchange of copies of birth and death records. These records are used for statistical purposes only, and allow each state or province to track the births and deaths of residents.

UNDERLYING CAUSE OF DEATH

The underlying cause of death is: 1.) the disease or injury that initiated the series of events leading to death, or 2.) the circumstances of the unintentional or intentional injury that resulted in the death. See Death Certificate.

RATES IMPORTANT FOR THIS SECTION INCLUDE:

AGE-SPECIFIC DEATH RATE	$\frac{\text{Number of Resident Deaths in Specific Age Group}}{\text{Total Population of Specific Age Group}} \times 100,000$
------------------------------------	---

CAUSE-SPECIFIC DEATH RATE	$\frac{\text{Number of Resident Deaths for a Specific Cause}}{\text{Total Population}} \times 100,000$
--------------------------------------	--

CRUDE DEATH RATE	$\frac{\text{Number of Resident Deaths In A Year}}{\text{Total Population}} \times 1,000$
-------------------------	---

FIGURE C - 1

Every day in 1991, residents of Massachusetts experienced an average of:

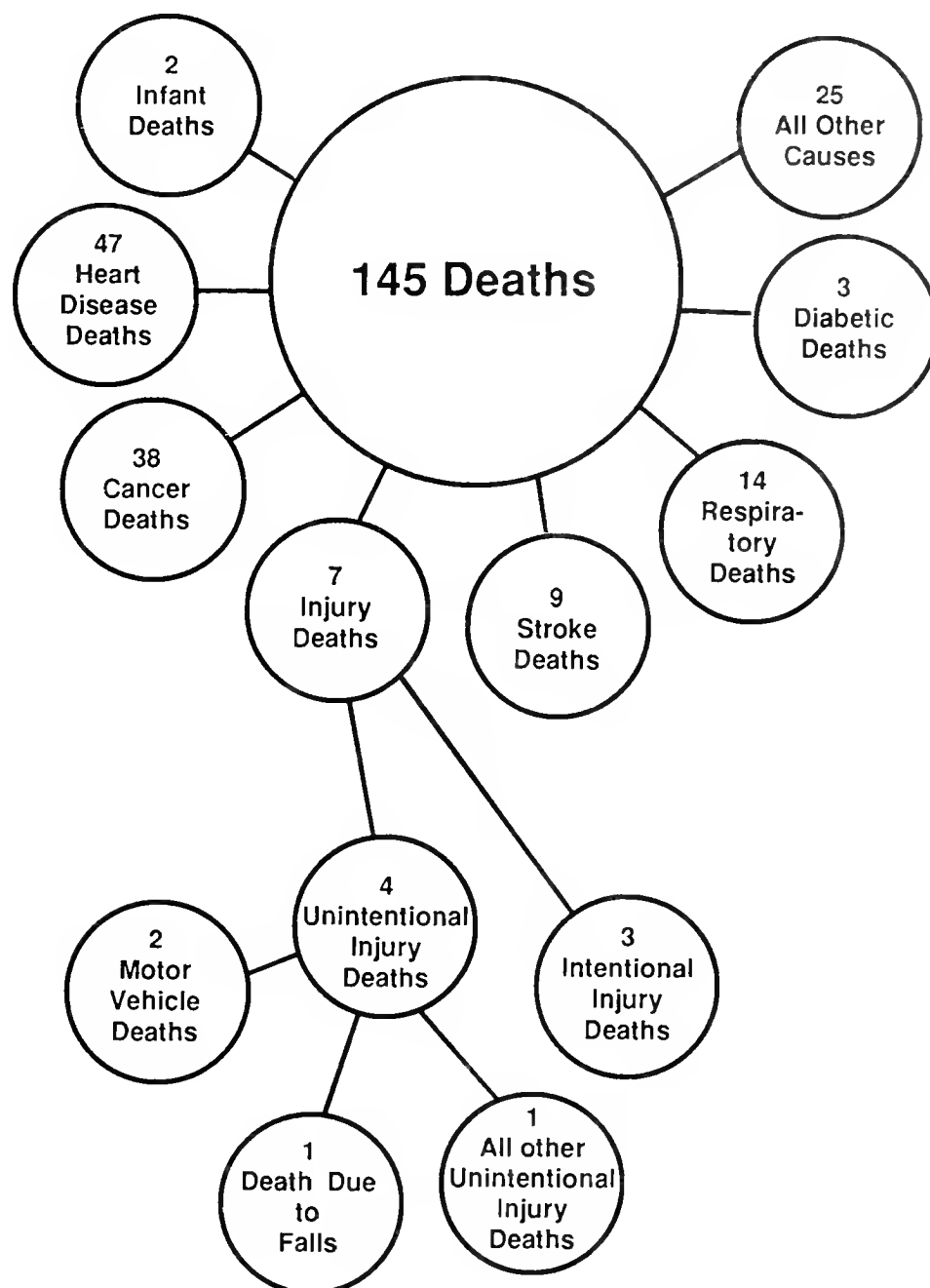
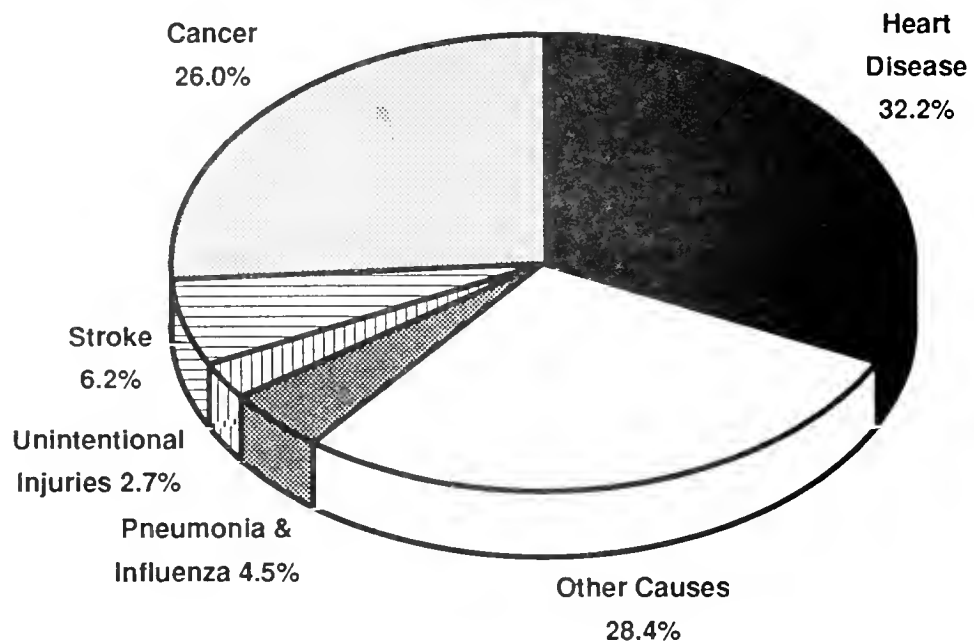


FIGURE C - 2

**Five Leading Causes of Death
Massachusetts: 1991**



Number of Deaths: 53,010

TABLE C--1
TRENDS IN MORTALITY CHARACTERISTICS
MASSACHUSETTS RESIDENT DEATHS
1980-1991

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Resident Deaths	# 54,934	52,813	52,867	54,150	55,189	55,597	55,860	55,562	56,407	53,748	53,008	53,010
Age-adjusted Death Rate ^{1,2}	550.7	529.7	502.1	527.8	526.8	523.7	516.2	509.6	513.7	489.9	471.7	461.5
Race of Decedent												
White	# 53,251 96.9	51,190 96.9	51,202 96.8	52,412 96.8	53,309 96.6	53,580 96.4	53,903 96.5	53,522 96.3	54,224 96.1	51,608 96.0	50,779 95.8	50,815 95.8
Black	# 1,508 2.8	1,447 2.8	1,462 2.8	1,497 2.8	1,644 3.0	1,779 3.2	1,731 3.1	1,786 3.2	1,909 3.4	1,850 3.4	1,879 3.5	1,887 3.6
Other	# 141 0.3	153 0.3	168 0.4	199 0.4	188 0.4	214 0.4	211 0.4	252 0.5	254 0.4	290 0.6	341 0.6	303 0.5
Unknown	# 34 --	23 --	35 --	42 --	48 --	24 --	15 --	2 --	20 --	0 --	9 --	5 --
Age of Decedent ³												
<1 year	# 748	710	764	682	699	746	695	608	693	697	649	576
1-4 years	# 127	120	113	121	97	112	131	96	103	106	93	81
5-19 years	# 547	541	497	478	472	466	440	404	407	370	375	334
20-44 years	# 2,680	2,594	2,423	2,546	2,628	2,734	2,900	3,041	3,243	3,183	3,005	3,242
45-64 years	# 10,504	10,303	10,141	10,087	9,947	9,691	9,150	9,052	9,051	8,532	8,138	7,877
65-74 years	# 12,411	12,193	12,373	12,393	12,750	12,790	12,638	12,530	12,593	12,153	11,707	11,415
75-84 years	# 15,506	14,775	14,673	15,132	15,435	15,515	15,984	16,091	16,003	15,439	15,553	15,506
85+ years	# 12,409	11,572	11,874	12,704	13,158	13,538	13,918	13,737	14,309	13,268	13,482	13,979

¹ The data are age-adjusted by the direct method using 1940 U.S. Census data.

² Rates are expressed as deaths per 100,000 residents.

³ Column sums may not equal totals, because the age of some decedents was unknown.

TABLE C-2
FIVE LEADING CAUSES OF DEATH
AGE-ADJUSTED RATES¹
MASSACHUSETTS AND UNITED STATES
1980-1991

YEAR		UNDERLYING CAUSE OF DEATH											
		Heart Disease (390-398, 402, 404-429)		Cancer (140-208)		Stroke (430-438)		Pneumonia/ Influenza (480-487)		Unintentional Injuries (E800-E949)		All Causes	
		MA	U.S.	MA	U.S.	MA	U.S.	MA	U.S.	MA	U.S.	MA	U.S.
1980	Rate %	197.7 39.9	202.0 38.2	136.6 22.2	132.8 20.9	34.2 7.9	40.8 8.6	16.7 4.0	12.9 2.7	30.4 3.9	42.3 5.3	550.7 585.8	
1981	Rate %	197.1 36.5	195.0 38.1	136.6 21.3	131.6 21.3	34.0 7.0	38.1 8.3	16.4 3.4	12.3 2.7	29.1 3.5	39.8 5.1	543.2 568.2	
1982	Rate %	196.5 36.5	190.5 38.3	137.6 21.7	132.6 22.0	31.7 6.6	35.8 8.0	13.8 2.9	10.9 2.5	25.2 3.1	36.6 4.8	536.2 553.2	
1983	Rate %	193.1 36.4	188.8 38.2	140.0 22.2	132.5 21.9	30.2 6.4	34.4 7.7	14.7 3.3	11.8 2.8	26.4 3.2	34.9 4.6	539.4 550.5	
1984	Rate %	192.9 36.6	183.6 37.4	140.7 22.3	132.6 22.1	30.6 6.6	33.4 7.6	14.8 3.3	12.2 2.9	25.7 3.2	35.0 4.6	542.7 545.9	
1985	Rate %	178.7 37.9	180.5 37.2	140.2 23.5	133.6 22.0	27.3 6.8	32.3 7.3	14.7 4.0	13.4 3.2	25.2 3.4	34.7 4.5	523.7 546.1	
1986	Rate %	172.3 37.2	175.0 36.4	137.7 23.4	133.2 22.3	27.0 6.7	31.0 7.1	16.0 4.5	13.5 3.3	24.8 3.3	35.2 4.5	516.2 541.7	
1987	Rate %	165.8 36.2	169.9 35.9	139.0 23.9	133.1 22.4	26.5 6.8	30.1 7.0	15.7 4.4	13.2 3.3	23.2 3.1	34.6 4.5	509.6 535.5	
1988	Rate %	164.1 35.8	166.7 35.3	138.6 23.3	133.3 22.5	26.0 6.6	29.8 6.6	16.0 4.5	14.2 3.6	23.1 3.1	35.1 4.5	513.7 536.3	
1989	Rate %	142.4 33.1	155.9 34.1	140.2 25.3	133.7 23.1	23.8 6.4	28.5 6.8	13.5 4.1	13.3 3.5	21.1 3.0	33.5 4.4	489.9 524.1	
1990	Rate %	138.2 33.4	150.3 33.5	136.7 25.3	133.0 23.4	22.5 6.2	27.6 6.7	14.2 4.3	13.5 3.6	19.4 2.9	32.7 4.3	471.7 520.2	
1991	Rate ² %	130.7 32.2	148.2 33.2	137.1 26.0	134.5 23.7	21.1 6.2	26.8 6.6	14.1 4.5	13.4 3.6	18.0 2.7	31.0 4.1	461.5 513.7	

¹ Age-adjusted rates per 100,000 residents in specified group.

² Source of 1991 U.S. data: "Advance Report of Final Mortality Statistics, 1991", Monthly Vital Statistics Report, Final data from the Centers for Disease Control/National Center for Health Statistics, U.S. Department of Health and Human Services, Vol. 42, No. 2, Supplement (August 31, 1993).

**TABLE C-3
LEADING CAUSES OF DEATH BY AGE
MASSACHUSETTS RESIDENTS
1991**

Age	Cause of Death	ICD-9 Code	Deaths
< 1 year	Certain conditions originating in the perinatal period	760-779	297
	Congenital anomalies	740-759	129
	Sudden infant death syndrome (SIDS)	798.0	58
	Total Deaths		576
1-4 years	Unintentional injuries, excluding motor vehicle injuries	E800-E807,E826-E949	14
	Congenital anomalies	740-759	10
	Symptoms, signs, and ill-defined conditions	780-799	8
	Cancer	140-208	6
	Total Deaths		81
5-14 years	Cancer	140-208	23
	Unintentional injuries, excluding motor vehicle injuries	E800-E807,E826-E949	22
	Motor vehicle-related injuries	E810-E825	17
	Homicide	E960-E978	10
	Total Deaths		126
15-24 years	Motor vehicle-related injuries	E810-E825	176
	Homicide and legal intervention	E960-E978	95
	Suicide	E950-E959	68
	Unintentional injuries, excluding motor vehicle injuries	E800-E807,E826-E949	47
	Total Deaths		538
25-44 years	Cancer	140-208	534
	AIDS and HIV-related diseases	042-044	512
	Major heart diseases	390-398,402,404-429	301
	Suicide	E950-E959	219
	Total Deaths		2,912
45-64 years	Ischemic heart disease	410-414	1,509
	Cancer of the lung and respiratory organs	160-165	1,018
	Cancer of the stomach and digestive organs	150-159	691
	Other heart disease	415-423,425-429	625
	Total Deaths		7,877
65-74 years	Ischemic heart disease	410-414	2,486
	Cancer of the lung and respiratory organs	160-165	1,317
	Cancer of the stomach and digestive organs	150-159	1,060
	Other heart disease	415-423,425-429	897
	Total Deaths		11,415
75-84 years	Ischemic heart disease	410-414	3,751
	Other heart disease	415-423,425-429	1,363
	Cancer of the stomach and digestive organs	150-159	1,143
	Stroke	430-438	1,116
	Cancer of the lung and respiratory organs	160-165	966
	Total Deaths		15,506
85 + years	Ischemic heart disease	410-414	3,557
	Other heart disease	415-423,425-429	1,640
	Stroke	430-438	1,368
	Pneumonia and influenza	480-487	1,216
	Cancer of the stomach and digestive organs	150-159	603
	Total Deaths		13,973

TABLE C-4
RESIDENT DEATHS BY AGE, SEX AND RACE
MASSACHUSETTS RESIDENTS
1991

AGE	TOTAL			WHITE			BLACK			OTHER & UNKNOWN		
	TOTAL ¹	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
TOTAL	53,010	25,460	27,550	50,814	24,230	26,584	1,887	1,038	849	309	192	117
0-4	657	352	305	518	278	240	123	66	57	16	8	8
5-9	66	43	23	52	36	16	12	6	6	2	1	1
10-14	60	41	19	57	40	17	2	1	1	1	0	1
15-19	208	162	48	161	121	40	41	35	6	6	6	0
20-24	330	259	71	275	216	59	48	38	10	7	5	2
25-29	460	339	121	392	286	106	59	45	14	9	8	1
30-34	646	456	190	562	396	168	77	53	24	7	7	0
35-39	854	613	241	724	526	198	118	80	38	12	7	5
40-44	952	653	299	842	576	266	99	70	29	11	7	4
45-49	1,114	691	423	1,023	634	389	79	49	30	12	8	4
50-54	1,278	766	512	1,177	702	475	80	53	27	21	11	10
55-59	2,085	1,270	815	1,939	1,174	765	124	81	43	22	15	7
60-64	3,400	2,063	1,337	3,225	1,972	1,253	153	81	72	22	10	12
65-69	4,990	2,909	2,081	4,796	2,794	2,002	161	92	69	33	23	10
70-74	6,425	3,520	2,905	6,218	3,413	2,805	178	89	89	29	18	11
75-79	7,559	3,848	3,711	7,380	3,757	3,623	142	63	79	37	28	9
80-84	7,947	3,430	4,517	7,798	3,360	4,438	128	57	71	21	13	8
85-89	6,932	2,356	4,576	6,792	2,312	4,480	121	38	83	19	6	13
90-94	4,581	1,180	3,401	4,478	1,149	3,329	92	26	66	11	5	6
95-99	2,016	429	1,587	1,972	417	1,555	37	8	29	7	4	3
≥ 100	444	74	370	431	69	362	10	4	6	3	1	2

¹ The total includes 6 male deaths of unknown age--two in the White total, three in the Black total and one in the Other & Unknown total.

TABLE C-5
DEATHS BY UNDERLYING CAUSE AND MENTIONED CONDITIONS
MASSACHUSETTS RESIDENTS
1991

Underlying Cause	Total Deaths ²	Mentioned Conditions ¹													Ratio of Mentions to Deaths	
		1	2	3	4	5	6	7	8	9	10	11	12	13		Tot 1-13
TOTAL	53,010	18,726	4,354	39,662	6,092	1,356	5,766	4,784	3,093	971	632	2,126	784	46,015	134,361	2.53
1. Cancer (140-208)	13,784	16,813	490	2,799	318	40	860	766	467	79	1	209	0	6,759	29,601	2.15
2. Diabetes Mellitus (250)	1,241	50	1,271	1,247	199	58	98	38	40	14	0	18	0	1,002	4,035	3.25
3. Heart Disease (390-398, 402, 404-429)	17,098	887	1,537	28,475	1,219	450	767	1,155	636	90	7	400	0	8,755	44,378	2.60
4. Stroke (430-438)	3,269	131	280	1,027	3,514	235	305	127	250	14	0	104	0	2,114	8,101	2.48
5. Atherosclerosis (440)	387	13	22	172	0	387	17	14	9	3	0	12	0	249	898	2.32
6. Pneumonia & Influenza (480-487)	2,388	170	136	867	223	21	2,389	160	61	24	1	22	0	1,899	5,973	2.50
7. COPD ³ (490-496)	2,093	171	98	1,042	61	11	433	2,110	118	9	3	62	1	1,737	5,856	2.80
8. Other Respiratory Disease (460-466, 470-478, 500-508, 510-519)	707	64	34	310	22	4	33	48	759	7	0	48	0	632	1,961	2.77
9. Chronic Liver Disease & Cirrhosis (571)	604	23	39	109	13	2	31	16	32	611	0	20	0	862	1,758	2.91
10. Motor Vehicle Injuries (E810-E825)	619	1	1	27	4	0	2	4	4	0	619	3	0	856	1,521	2.46
11. Other Injuries (E800-E809, E826-E949)	793	23	27	251	31	10	26	14	43	5	0	821	0	1,497	2,748	3.47
12. Suicide & Homicide (E950-E969)	773	6	3	16	2	0	1	0	2	1	0	5	782	1,062	1,880	2.43
13. All Other Causes	9,254	374	416	3,320	486	138	804	332	672	114	1	402	1	18,591	25,651	2.77

¹ The numbers in the Mentioned Conditions columns refer to the causes with the same numbers in the Underlying Cause column, i.e., column #1 under Mentioned Conditions is the number of mentions of cancer.

² Total Deaths by Underlying Cause.

³ Chronic Obstructive Pulmonary Disease.

TABLE C-6
CANCER DEATHS BY UNDERLYING CAUSE AND MENTIONED CONDITIONS
MASSACHUSETTS RESIDENTS
1991

Mentioned Conditions	Underlying Cause of Cancer						
	Total	Digestive Organs & Peritoneum (150-159)	Respiratory & Intrathoracic Organs (160-165)	Bone, Skin, Connective Tissue & Breast (170-175)	Genitourinary Organs (179-189)	Lymphatic & Haematopoietic Tissue (200-208)	All Other Malignant Neoplasms
Total Mentioned Conditions	29,601	7,521	7,679	3,305	4,610	3,047	3,439
Mean Number of Mentioned Conditions Per Record	2.15	2.11	2.11	2.02	2.22	2.39	2.15
Deaths	13,784	3,570	3,631	1,637	2,074	1,275	1,597
1. Any Cancer (140-208)	16,813	4,375	4,375	2,129	2,551	1,383	2,000
2. Diabetes Mellitus (250)	490	153	94	50	85	53	55
3. Heart Disease (390-398, 402, 404-429)	2,799	690	695	276	484	335	319
4. Stroke (430-438)	318	79	70	28	57	55	29
5. Atherosclerosis (440)	40	11	12	2	10	3	2
6. Pneumonia/Influenza (480-487)	860	138	320	61	116	151	74
7. COPD (490-496)	766	111	449	43	55	35	73
8. Other Respiratory Disease (460-466, 470-478, 500-508, 510-519)	467	81	158	44	57	64	63
9. Chronic Liver Disease & Cirrhosis (571)	79	42	10	3	9	7	8
10. Unintentional Injuries (E800-E949)	210	55	56	16	29	31	23
11. All Other Causes	6,759	1,786	1,440	653	1,157	930	793

TABLE C-7
ATHEROSCLEROSIS, HYPERTENSIVE DISEASE AND DIABETES
UNDERLYING CAUSE AND MENTIONED CONDITIONS BY AGE GROUP AND SEX
MASSACHUSETTS RESIDENT DEATHS
1991

Age	Sex	# of Deaths	Atherosclerosis (440)			Hypertensive Disease (401-405)			Diabetes Mellitus (250)		
			Under-lying Cause	Mentioned Conditions	Total % of Deaths	Under-lying Cause	Mentioned Conditions	Total % of Deaths	Under-lying Cause	Mentioned Conditions	Total % of Deaths
	TOTAL ¹	53,010	387	969	<u>1,356</u> 2.6	507	2,864	<u>3,371</u> 6.4	1,241	3,083	<u>4,324</u> 8.2
	MALE	25,460	131	430	<u>561</u> 2.2	194	1,111	<u>1,305</u> 5.1	543	1,355	<u>1,898</u> 7.4
	FEMALE	27,550	256	539	<u>795</u> 2.9	313	1,752	<u>2,065</u> 7.5	698	1,728	<u>2,426</u> 8.8
0-39	Total	3,281	1	1	<u>2</u> 0.1	6	17	<u>23</u> 0.7	28	20	<u>48</u> 1.5
	Male	2,265	1	1	<u>2</u> 0.1	5	13	<u>18</u> 0.8	20	15	<u>35</u> 1.5
	Female	1,016	0	0	<u>0</u> 0.0	1	4	<u>5</u> 0.5	8	5	<u>13</u> 1.3
40-49	Total	2,066	1	8	<u>9</u> 0.4	10	56	<u>66</u> 3.2	37	68	<u>105</u> 5.1
	Male	1,344	0	6	<u>6</u> 0.4	9	42	<u>51</u> 3.8	26	47	<u>73</u> 5.4
	Female	722	1	2	<u>3</u> 0.4	1	14	<u>15</u> 2.1	11	21	<u>32</u> 4.4
50-59	Total	3,363	8	36	<u>44</u> 1.3	24	127	<u>151</u> 4.5	80	168	<u>248</u> 7.4
	Male	2,036	7	25	<u>32</u> 1.6	17	83	<u>100</u> 4.9	49	92	<u>141</u> 6.9
	Female	1,327	1	11	<u>12</u> 0.9	7	44	<u>51</u> 3.8	31	76	<u>107</u> 8.1
60-69	Total	8,390	24	101	<u>125</u> 1.5	79	461	<u>540</u> 6.4	216	576	<u>792</u> 9.4
	Male	4,972	14	70	<u>84</u> 1.7	45	257	<u>302</u> 6.1	106	304	<u>410</u> 8.2
	Female	3,418	10	31	<u>41</u> 1.2	34	204	<u>238</u> 7.0	110	272	<u>382</u> 11.2
70-79	Total	13,984	74	256	<u>330</u> 2.4	114	852	<u>966</u> 6.9	407	1,041	<u>1,448</u> 10.3
	Male	7,368	37	154	<u>191</u> 2.6	46	390	<u>436</u> 5.9	186	493	<u>679</u> 9.2
	Female	6,616	37	102	<u>139</u> 2.1	68	462	<u>530</u> 8.0	221	548	<u>769</u> 11.6
≥ 80	Total	21,920	279	567	<u>846</u> 3.9	274	1,350	<u>1,624</u> 7.4	473	1,210	<u>1,683</u> 7.7
	Male	7,469	72	174	<u>246</u> 3.3	72	326	<u>398</u> 5.3	156	404	<u>560</u> 7.5
	Female	14,451	207	393	<u>600</u> 4.2	202	1,024	<u>1,226</u> 8.5	317	806	<u>1,123</u> 7.8

¹ Total includes 6 male deaths of unknown age.

² **Indicates percentage less than 0.1.

TABLE C-8
SUICIDES BY METHOD, SEX AND AGE
MASSACHUSETTS RESIDENT DEATHS
1991

UNDERLYING CAUSE	ICD-9 Code		TOTAL	Age								
				10-14	15-19	20-29	30-39	40-49	50-59	60-69	70-79	≥ 80
All Suicides	E950-E958	M	383	3	22	93	81	63	41	33	26	21
		F	121	0	2	23	24	27	16	16	8	5
		T	504	3	24	116	105	90	57	49	34	26
		%	100.0 ¹	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Poisoning by solid or liquid substances	E950	M	30	0	0	5	6	9	5	3	2	0
		F	50	0	0	7	9	14	7	8	4	1
		T	80	0	0	12	15	23	12	11	6	1
		%	15.9	0.0	0.0	10.3	14.3	25.6	21.0	22.4	17.6	3.8
Poisoning by motor vehicle exhaust gas	E952	M	37	0	2	6	10	10	5	0	1	3
		F	11	0	1	2	1	1	1	1	3	1
		T	48	0	3	8	11	11	6	1	4	4
		%	9.5	0.0	12.5	6.9	10.5	12.2	10.5	2.0	11.8	15.4
Hanging, strangulation and suffocation	E953	M	123	1	9	39	21	21	9	14	7	2
		F	21	0	1	3	2	5	5	5	0	0
		T	144	1	10	42	23	26	14	19	7	2
		%	28.6	33.3	41.7	36.2	21.9	28.9	24.6	38.8	20.6	7.7
Submersion (drowning)	E954	M	4	0	0	3	0	0	0	1	0	0
		F	5	0	0	1	2	1	0	1	0	0
		T	9	0	0	4	2	1	0	2	0	0
		%	1.8	0.0	0.0	3.4	1.9	1.1	0.0	4.1	0.0	0.0
Firearms and explosives	E955	M	145	2	11	31	35	13	19	11	12	11
		F	21	0	0	5	8	4	2	0	1	1
		T	166	2	11	36	43	17	21	11	13	12
		%	32.9	66.7	45.8	31.0	40.9	18.9	36.8	22.4	38.2	46.2
Cutting and piercing instruments	E956	M	10	0	0	0	2	3	0	2	1	2
		F	4	0	0	1	0	1	1	1	0	0
		T	14	0	0	1	2	4	1	3	1	2
		%	2.8	0.0	0.0	0.9	1.9	4.4	1.8	6.1	2.9	7.7
Jumping from high places	E957	M	23	0	0	8	2	5	3	2	3	0
		F	6	0	0	2	2	1	0	0	0	1
		T	29	0	0	10	4	6	3	2	3	1
		%	5.7	0.0	0.0	8.6	3.8	6.7	5.3	4.1	8.8	3.8
Other and unspecified means	E958	M	11	0	0	1	5	2	0	0	0	3
		F	3	0	0	2	0	0	0	0	0	1
		T	14	0	0	3	5	2	0	0	0	4
		%	2.8	0.0	0.0	2.6	4.8	2.2	0.0	0.0	0.0	15.4

¹ Percents may not sum to 100.0 due to rounding.

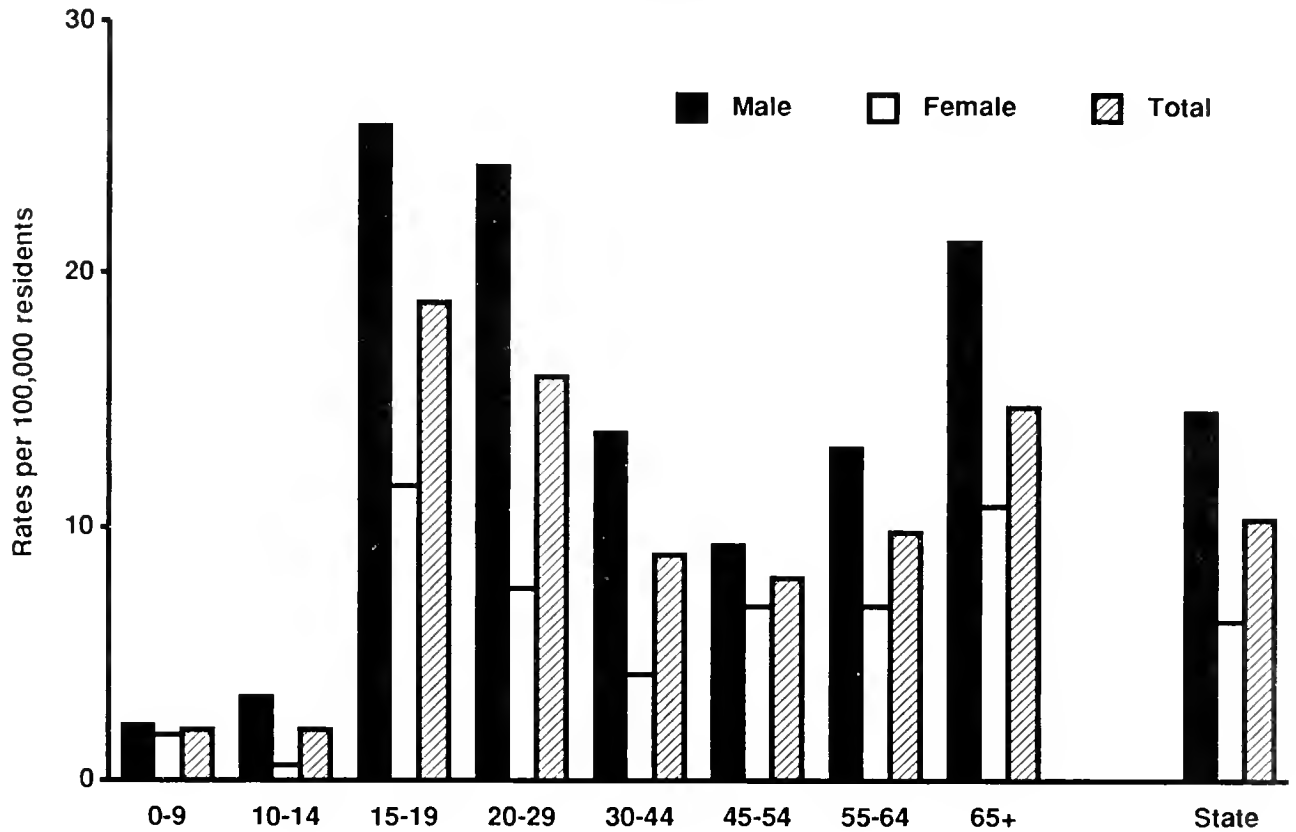
**TABLE C-9
MOTOR VEHICLE DEATHS BY TYPE
MASSACHUSETTS RESIDENTS
1991**

UNDERLYING CAUSE	ICD-9 Code		TOTAL	Victim						
				Driver	Passenger	Motor-cyclist	Passenger, Motorcycle	Pedestrian	Pedal Cyclist	Other & Unspec.
All Motor Vehicle Deaths	E810-E825	M	420	204	71	38	2	72	11	22
		F	199	80	55	0	3	43	3	15
		T	619	284	126	38	5	115	14	37
		%	100.0 ¹	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Collision with train	E810	M	1	1	0	0	0	0	0	0
		F	0	0	0	0	0	0	0	0
		T	1	1	0	0	0	0	0	0
		%	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Collision with another motor vehicle	E812	M	122	71	23	25	1	0	0	2
		F	77	46	24	0	2	0	0	5
		T	199	117	47	25	3	0	0	7
		%	32.1	41.2	37.3	65.8	60.0	0.0	0.0	18.9
Collision with another vehicle	E813	M	11	0	0	0	0	0	11	0
		F	3	0	0	0	0	0	3	0
		T	14	0	0	0	0	0	14	0
		%	2.3	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Motor vehicle with pedestrian	E814	M	73	0	0	0	0	72	0	1
		F	43	0	0	0	0	43	0	0
		T	116	0	0	0	0	115	0	1
		%	18.7	0.0	0.0	0.0	0.0	100.0	0.0	2.7
Other motor vehicle collision on the highway	E815	M	134	93	29	9	1	0	0	2
		F	44	23	19	0	0	0	0	2
		T	178	116	48	9	1	0	0	4
		%	28.8	40.8	38.1	23.7	20.0	0.0	0.0	10.8
Lost control without collision on the highway	E816	M	49	31	12	4	0	0	0	2
		F	17	11	5	0	1	0	0	0
		T	66	42	17	4	1	0	0	2
		%	10.7	14.8	13.5	10.5	20.0	0.0	0.0	5.4
Other non-collision motor vehicle	E818	M	7	1	4	0	0	0	0	2
		F	0	0	0	0	0	0	0	0
		T	7	1	4	0	0	0	0	2
		%	1.1	0.4	3.2	0.0	0.0	0.0	0.0	5.4
Motor vehicle of unspecified nature	E819	M	15	5	3	0	0	0	0	7
		F	14	0	6	0	0	0	0	8
		T	29	5	9	0	0	0	0	15
		%	4.7	1.8	7.1	0.0	0.0	0.0	0.0	40.5
Other involving motor-driven snow vehicle	E820	M	2	0	0	0	0	0	0	2
		F	0	0	0	0	0	0	0	0
		T	2	0	0	0	0	0	0	2
		%	0.3	0.0	0.0	0.0	0.0	0.0	0.0	5.4
Other off-road motor vehicle	E821	M	1	0	0	0	0	0	0	1
		F	1	0	1	0	0	0	0	0
		T	2	0	1	0	0	0	0	1
		%	0.3	0.0	0.8	0.0	0.0	0.0	0.0	2.7
Other involving collision with moving object	E822	M	1	1	0	0	0	0	0	0
		F	0	0	0	0	0	0	0	0
		T	1	1	0	0	0	0	0	0
		%	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Other involving collision with stationary object	E823	M	1	1	0	0	0	0	0	0
		F	0	0	0	0	0	0	0	0
		T	1	1	0	0	0	0	0	0
		%	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Other nontraffic of unspecified nature	E825	M	3	0	0	0	0	0	0	3
		F	0	0	0	0	0	0	0	0
		T	3	0	0	0	0	0	0	3
		%	0.5	0.0	0.0	0.0	0.0	0.0	0.0	8.1

Percents may not sum to 100.0 due to rounding.

Figure C-3

**Motor Vehicle Deaths
Age-Specific Rates
Massachusetts: 1991**



Male	2.2	3.3	25.8	24.2	13.7	9.3	13.1	21.2
Female	1.8	0.6	11.6	7.6	4.2	6.9	6.9	10.8
Total	2.0	2.0	18.8	15.9	8.9	8.0	9.8	14.7

14.5
6.3
10.3

TABLE C-10A
AIDS¹ AND HIV-RELATED² DEATHS BY CAUSE AND PLACE OF OCCURRENCE
MASSACHUSETTS RESIDENT DEATHS
1987-1991

		AIDS and AIDS-related Deaths	<u>Cause of Death</u> (ICD-9 Codes)			<u>Place of Occurrence</u>			
		TOTAL	AIDS (042)	AIDS-like syndrome (043)	Other HIV infection (044)	At Home	Hospital	Out of State	Other
1987	#	241	233	3	5	26	207	5	3
	%	100.0	96.7	1.2	2.1	10.8	85.9	2.1	1.2
1988	#	315	303	3	9	67	234	7	7
	%	100.0	96.2	0.9	2.9	21.3	74.3	2.2	2.2
1989	#	404	382	1	21	79	313	7	5
	%	100.0	94.6	0.2	5.2	19.6	77.5	1.7	1.2
1990	#	447	427	4	16	90	284	9	64
	%	100.0	95.5	0.9	3.6	20.1	63.5	2.1	14.3
1991	#	632	595	3	34	159	338	4	131
	%	100.0	94.1	0.5	5.4	25.2	53.5	0.6	20.7

TABLE C-10B
AIDS AND HIV-RELATED DEATHS BY SEX, RACE AND AGE
MASSACHUSETTS RESIDENT DEATHS
1987-1991

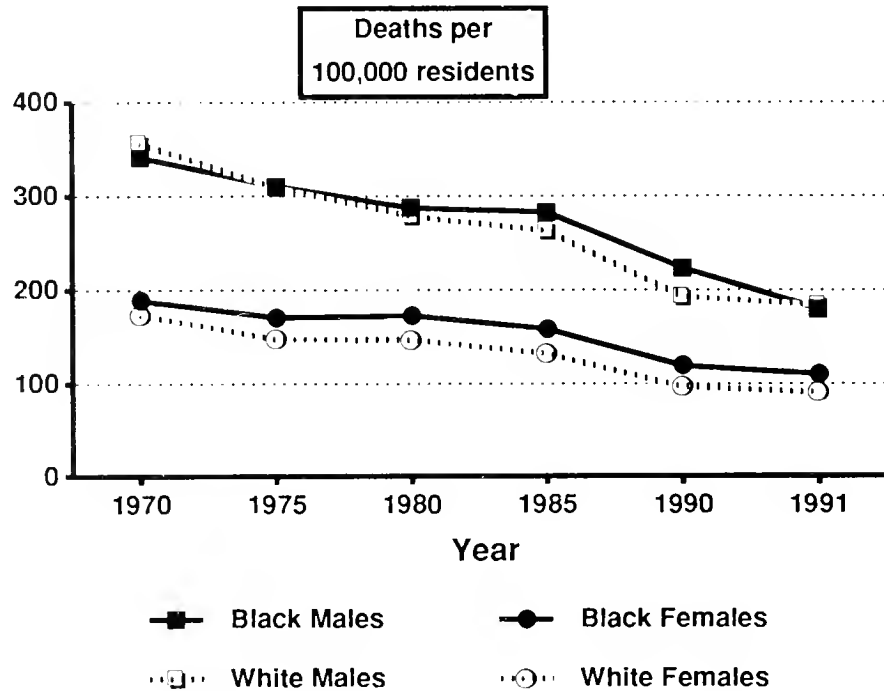
		AIDS and AIDS-related Deaths	<u>Sex</u>		<u>Race</u>			<u>Age</u> (in years)				
		TOTAL	Male	Female	White	Black	Other	< 14	14-24	25-34	35-44	45 +
1987	#	241	209	32	190	50	1	5	8	105	78	45
	%	100.0	86.7	13.3	78.8	20.8	0.4	2.1	3.3	43.6	32.3	18.7
1988	#	315	281	34	251	64	0	5	12	111	127	60
	%	100.0	89.2	10.8	79.7	20.3	0.0	1.6	3.8	35.2	40.3	19.1
1989	#	404	359	45	327	76	1	3	16	146	167	72
	%	100.0	88.9	11.1	81.0	18.8	0.2	0.8	4.0	36.1	41.3	17.8
1990	#	447	390	57	352	94	1	3	4	147	197	96
	%	100.0	87.2	12.8	78.8	21.0	0.2	0.7	0.9	32.8	44.1	21.5
1991	#	632	535	97	513	118	1	9	19	214	298	92
	%	100.0	84.7	15.3	81.2	18.7	0.1	1.4	3.0	33.8	47.2	14.6

¹ Acquired Immune Deficiency Syndrome

² Human Immunodeficiency Virus

Figure C-4

Heart Disease Deaths by Race and Sex
Age-Adjusted Rates¹
Massachusetts: 1970-1991



1. All rates are age-adjusted by the direct method using the 1940 U.S. Census Data.

TABLE C-11
CANCER DEATHS BY LEADING CAUSES
AGE-ADJUSTED RATES¹
MASSACHUSETTS RESIDENT DEATHS
1991

Cause of Death	ICD-9 Code	Total		Male		Female	
		Number	Rate	Number	Rate	Number	Rate
Total Deaths		53,010	461.5	25,460	605.6	27,550	352.7
Total Cancer Deaths	140-208	13,784	137.1	6,894	167.2	6,890	117.9
Esophagus	150	282	3.0	209	5.5	73	1.2
Stomach	151	421	3.8	248	5.8	173	2.4
Colon, rectum, rectosigmoid junction and anus	153-154	1,722	15.2	805	18.6	917	12.9
Pancreas	157	684	6.4	301	7.4	383	5.8
Trachea, bronchus and lung	162	3,502	37.3	2,086	52.7	1,416	26.3
Female breast	174	1,321	25.3	0	0.0	1,321	25.3
Ovary and other uterine adnexa	183	354	6.8	0	0.0	354	6.8
Prostate	185	838	16.6	838	16.6	0	0.0
Brain	191	284	3.6	161	4.6	123	2.7
Lymphosarcoma and reticulosarcoma, Hodgkin's disease and other cancers of lymphoid and histiocytic tissue	200-202	601	6.0	304	7.5	297	4.8
All other cancers	Residual	3,775	37.7	1,942	48.5	1,833	29.8

¹ All rates are age-adjusted by the direct method using 1940 U.S. Census data. Rates are per 100,000 population.

Figure C-5

**Cancer Deaths by Race and Sex
Age-Adjusted Rates
Massachusetts: 1970-1991**

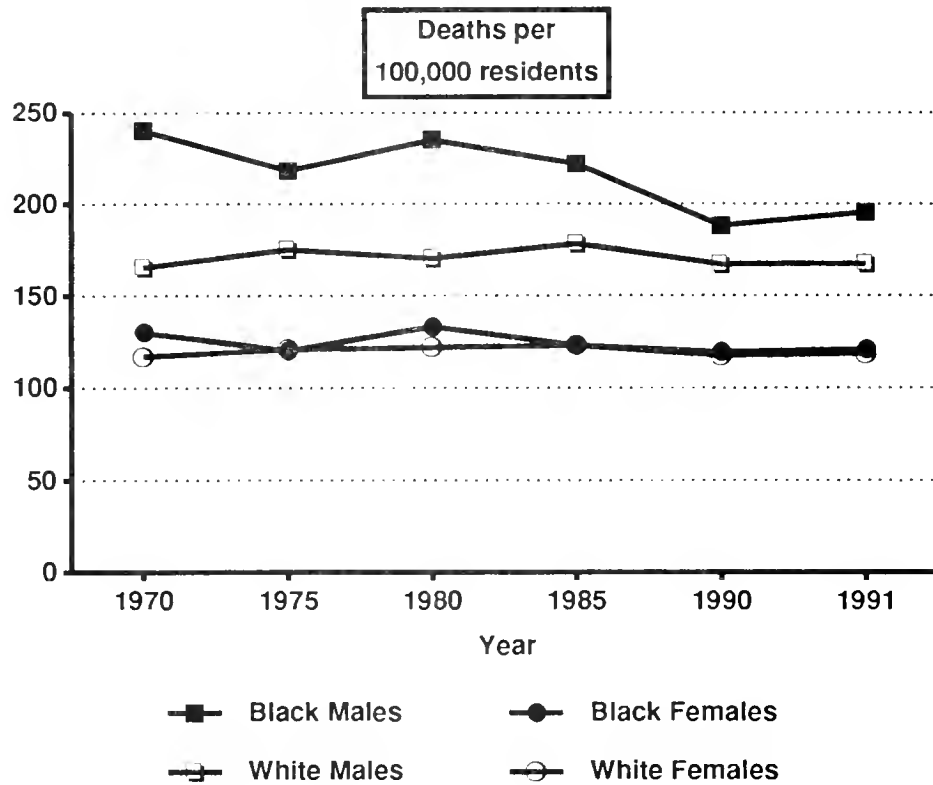


TABLE C-12
MEDICAL EXAMINER CERTIFIED DEATHS
BY CAUSE, RACE, SEX AND AGE
MASSACHUSETTS OCCURRENCE
1991

AGE	RACE/SEX	Total Deaths Certified by Medical Examiner	Motor Vehicle Injuries (E810-E825)	Suicide (E950-E959)	Homicide (E960-E969)	Legal Intervention/ Undeter. Injury (E970-E999)	All Other Injuries (E800-E807, E825-E949)	Non-violent Causes (000-778)	Ill-Defined & Unknown Causes (780-796)
TOTAL ¹	White M	3,298	360	360	106	164	267	1,929	112
	F	1,759	172	118	39	59	123	1,191	57
	Black M	308	30	17	93	14	20	115	19
	F	115	14	1	12	7	8	67	6
	Other M	51	10	4	16	3	1	16	1
	F	10	1	1	5	0	1	1	1
	Total	5,541	587	501	271	247	420	3,319	196
< 1	White M	60	0	0	0	0	4	13	43
	F	22	0	0	1	1	2	1	17
	Black M	13	0	0	0	0	1	5	7
	F	6	0	0	0	0	0	1	5
	Other M	0	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0	0
	Total	101	0	0	1	1	7	20	72
1-14	White M	53	10	3	3	1	24	8	4
	F	29	8	0	4	0	10	3	4
	Black M	11	4	0	2	0	4	1	0
	F	3	1	0	0	0	2	0	0
	Other M	1	0	0	0	0	0	0	0
	F	1	0	0	1	0	0	1	0
	Total	98	23	3	10	1	40	13	8
15-19	White M	94	43	20	12	2	14	3	0
	F	28	18	2	2	0	1	3	2
	Black M	38	6	3	26	0	3	0	0
	F	5	2	0	3	0	0	0	0
	Other M	6	3	0	3	0	0	0	0
	F	0	0	0	0	0	0	0	0
	Total	171	72	25	46	2	18	6	2

¹ Total includes two white males of unknown age, two black males of unknown age and one male of other race and unknown age.

TABLE C-12 (continued)
MEDICAL EXAMINER CERTIFIED DEATHS
BY CAUSE, RACE, SEX AND AGE
MASSACHUSETTS OCCURRENCE
1991

AGE	RACE/SEX	Total Deaths Certified by Medical Examiner	Motor Vehicle Injuries (E810-E825)	Suicide (E950-E959)	Homicide (E960-E969)	Legal Intervention/ Undeter. Injury (E970-E999)	All Other Injuries (E800-E807, E825-E949)	Non-violent Causes (000-778)	Ill-Defined & Unknown Causes (780-796)
20-29	White M	335	107	83	32	39	33	32	9
	F	97	37	18	10	12	3	14	3
	Black M	74	8	4	43	4	4	9	2
	F	16	6	0	4	0	1	4	1
	Other M	10	2	1	5	0	0	1	1
	F	5	1	1	1	0	1	0	1
	Total	537	161	107	95	55	42	60	17
30-39	White M	448	66	73	22	81	52	135	19
	F	130	22	24	8	24	7	37	8
	Black M	55	9	3	16	4	4	14	5
	F	20	1	1	2	5	0	11	0
	Other M	10	1	1	4	2	1	1	0
	F	0	0	0	0	0	0	0	0
	Total	663	99	102	52	116	64	198	32
40-49	White M	431	26	60	19	30	29	241	26
	F	137	14	26	6	16	9	57	9
	Black M	39	3	2	3	4	1	22	4
	F	17	2	0	1	2	0	12	0
	Other M	6	2	2	2	0	0	0	0
	F	2	0	0	2	0	0	0	0
	Total	632	47	90	33	52	39	332	39
50-59	White M	387	27	44	10	7	29	266	4
	F	140	19	16	3	2	6	91	3
	Black M	30	0	2	2	2	0	24	0
	F	11	1	0	1	0	0	9	0
	Other M	10	2	0	2	0	0	6	0
	F	1	0	0	1	0	0	0	0
	Total	579	49	62	19	11	35	396	7

TABLE C-12 (continued)
MEDICAL EXAMINER CERTIFIED DEATHS
BY CAUSE, RACE, SEX AND AGE
MASSACHUSETTS OCCURRENCE
1991

AGE	RACE/SEX	Total Deaths Certified by Medical Examiner	Motor Vehicle Injuries (E810-E825)	Suicide (E950-E959)	Homicide (E960-E969)	Legal Intervention/ Undeter. Injury (E970-E999)	All Other Injuries (E800-E807, E825-E949)	Non-violent Causes (000-778)	Ill-Defined & Unknown Causes (780-796)
60-69	White M	566	28	32	3	1	25	471	6
	F	277	16	19	1	2	9	227	3
	Black M	25	0	2	1	0	1	20	1
	F	8	0	0	0	0	0	8	0
	Other M	3	0	0	0	0	0	3	0
70-79	F	0	0	0	0	0	0	0	0
	Total	879	44	53	5	3	35	729	10
≥ 80	White M	557	33	25	2	2	24	471	0
	F	401	25	8	3	2	25	336	2
	Black M	12	0	1	0	0	0	11	0
	F	13	1	0	0	0	0	12	0
	Other M	3	0	0	0	0	0	3	0
≥ 80	F	0	0	0	0	0	0	0	0
	Total	986	59	34	5	4	49	833	2
≥ 80	White M	365	20	20	1	1	33	289	1
	F	498	13	5	1	0	51	422	6
	Black M	9	0	0	0	0	2	7	0
	F	16	0	0	1	0	5	10	0
	Other M	1	0	0	0	0	0	1	0
≥ 80	F	1	0	0	0	0	0	1	0
	Total	890	33	25	3	1	91	730	7

Figure C-6

Proportion of Deaths Certified by Medical Examiner for Selected Causes of Death

Occurrence Deaths
Massachusetts: 1991

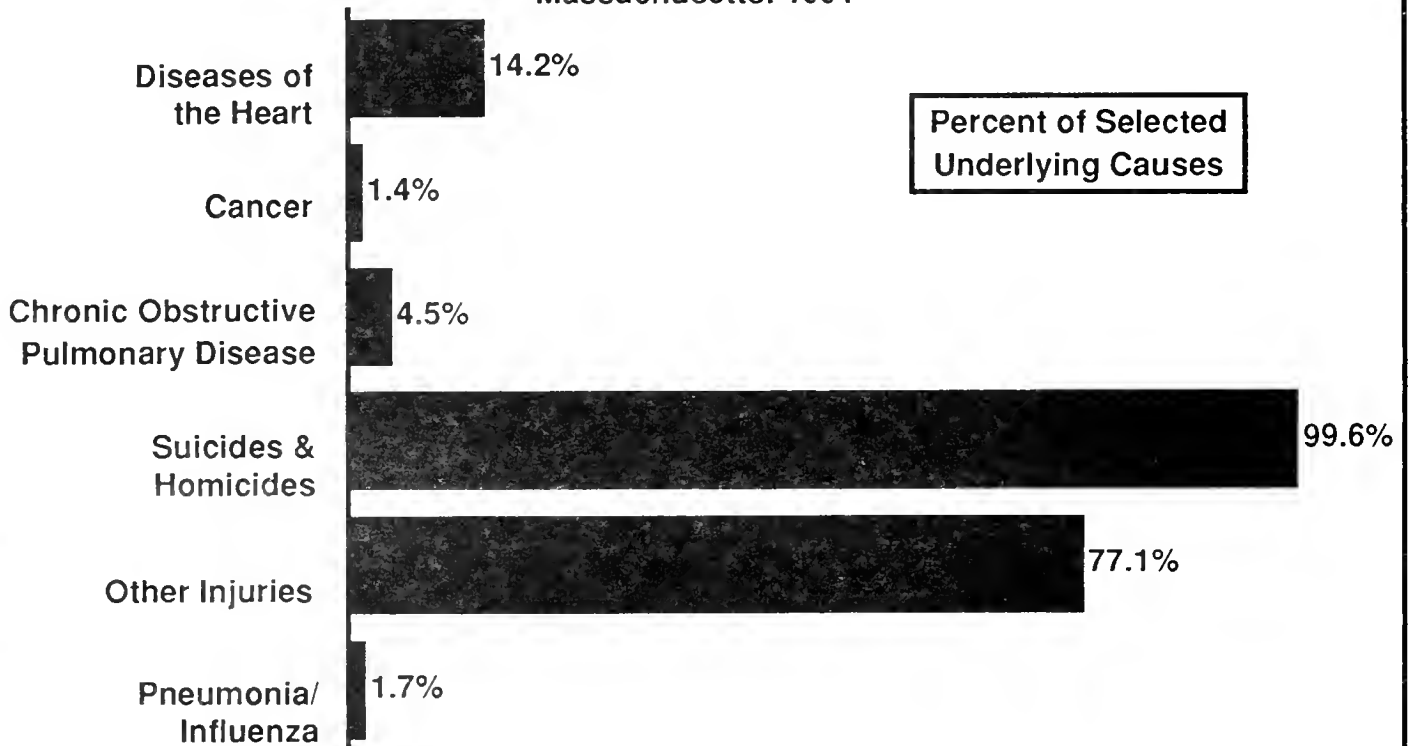


TABLE C-13
MEDICAL EXAMINER CERTIFIED DEATHS BY COUNTY
MASSACHUSETTS OCCURRENCE
1991

County		Population	Occurrence Deaths	M.E. Certified ¹	Referred--Not Certified By M.E. ¹	Natural Cause Deaths Certified by M.E. ²
TOTAL	# % Rank	6,038,684 100.0 --	53,688 100.0 ³ --	5,541 10.3 --	9,740 18.1 --	3,363 60.7 --
Barnstable	# % Rank	190,629 3.2 9	2,199 4.1 9	290 13.2 4	359 18.3 9	217 74.8 3
Berkshire	# % Rank	139,366 2.3 11	1,605 3.0 10	117 7.3 13	314 19.6 4	57 48.7 12
Bristol	# % Rank	506,748 8.4 6	4,109 7.7 7	409 10.0 8	667 16.2 10	265 64.8 8
Dukes	# % Rank	11,887 0.2 13	107 0.2 13	21 19.6 1	12 11.2 13	17 81.0 1
Essex	# % Rank	671,367 11.1 3	5,640 10.5 4	722 12.8 5	717 12.7 12	486 67.3 6
Franklin	# % Rank	70,584 1.2 12	592 1.1 12	73 12.3 6	92 15.5 11	47 64.4 9
Hampden	# % Rank	455,762 7.5 7	4,659 8.7 6	430 9.2 10	959 20.6 3	248 57.7 10
Hampshire	# % Rank	147,601 2.4 10	924 1.7 11	90 9.7 9	176 19.0 6	51 56.7 11
Middlesex	# % Rank	1,403,836 23.2 1	10,462 19.5 1	1,047 10.0 8	2,010 19.2 5	718 68.6 5
Nantucket	# % Rank	6,240 0.1 14	57 0.1 14	8 14.0 3	0 0.0 14	6 75.0 2
Norfolk	# % Rank	620,973 10.3 5	4,584 8.5 6	392 8.6 11	981 21.4 1	273 69.6 4
Plymouth	# % Rank	436,301 7.2 8	2,896 5.4 8	446 15.4 2	518 17.9 7	298 66.8 7
Suffolk	# % Rank	667,744 11.1 4	9,374 17.5 2	976 10.4 7	1,558 16.6 8	443 45.4 14
Worcester	# % Rank	710,666 11.8 2	6,480 12.1 3	520 8.0 12	1,377 21.2 2	237 45.6 13

¹ The percentages and ranks in the Medical Examiner Certified Deaths column and the Referred--Not Certified by Medical Examiner column are based on the totals in the Occurrence Deaths column.

² The percentages and ranks of natural cause deaths certified by medical examiners are based on the total number of medical examiner certified deaths for each county.

³ Percents do not sum to 100.0 due to rounding.

TABLE C-14A
SELECTED CAUSES OF DEATH BY CITY AND TOWN OF RESIDENCE
1991

	HEART DISEASES (390-398, 402, 404-429)	MALIGNANT NEOPLASMS (140-209)	CEREBROVASCULAR DISEASE (430-438)	MOTOR VEHICLE ACCIDENTS (810-825)	OTHER ACCIDENTS (800-807, 826-949)	INFLUENZA & PNEUMONIA (480-487)	CHRONIC OBSTRUCTIVE PULMONARY (490-496)	DIABETES MELLITUS (250)	CHRONIC LIVER DIS. & CIRRHOSIS (571)	ATHEROSCLEROSIS (440)	SUICIDE (950-959)	ALL OTHER CAUSES	TOTAL
ABINGTON	46	23	9	0	2	9	5	4	0	3	2	19	122
ACTION	22	27	7	5	1	3	2	2	0	0	2	16	87
ACUSHNET	20	19	4	1	0	3	5	2	1	0	1	10	66
ADAMS	49	23	7	0	3	3	6	2	1	0	0	23	117
AGANAM	78	59	13	5	1	15	6	6	2	0	4	40	229
ALFORD	1	0	0	1	0	0	0	0	0	0	0	1	3
AMESBURY	54	34	14	1	1	8	6	4	1	1	2	17	143
AMHERST	37	27	11	1	2	3	4	1	4	0	3	15	108
ANDOVER	77	44	10	2	1	6	8	7	2	0	2	40	199
ARLINGTON	129	118	36	0	6	21	13	3	7	1	6	76	416
ASHBURNHAM	6	16	0	0	0	1	3	0	0	0	3	10	39
ASHBY	4	6	0	0	0	0	0	0	0	0	0	1	11
ASHFIELD	3	3	0	0	1	0	0	0	1	0	0	0	8
ASHLAND	18	17	3	0	0	2	4	1	1	0	2	18	66
ATHOL	34	31	6	1	4	11	7	6	0	0	2	35	137
ATTLEBORO	98	83	16	8	3	12	11	5	4	1	1	48	290
AUBURN	35	38	9	2	2	5	6	0	2	0	3	26	128
AVON	12	16	1	0	2	2	2	1	0	0	1	4	41
AYER	14	13	4	0	1	2	4	1	0	0	1	23	63
BARNSTABLE	137	110	36	4	8	19	27	12	4	7	2	90	456
BARE	18	9	1	0	1	1	5	2	0	0	0	8	45
BECKET	2	5	0	0	0	0	1	0	0	0	0	2	10
BEDFORD	27	29	9	3	4	10	4	1	0	1	1	28	117
BELCHERTOWN	19	23	3	2	5	2	4	1	0	0	0	11	70
BELLINGHAM	27	20	3	3	1	2	1	0	1	0	5	16	79
BELMONT	82	68	20	0	4	20	8	2	1	0	1	47	253
BERKLEY	7	2	3	0	0	2	1	0	1	1	1	3	21
BERLIN	5	5	0	0	1	1	0	0	0	0	0	7	19
BERNHARDSTON	5	3	0	1	0	1	1	0	0	0	0	0	11
BEVERLY	131	106	31	1	6	25	18	7	3	6	5	67	406
BILLERICA	66	59	13	2	3	7	14	4	2	1	2	35	208
BLACKSTONE	18	9	1	0	0	0	3	1	1	1	0	3	37
BLANDFORD	4	2	0	0	0	1	0	1	0	0	0	1	9
BOLTON	7	6	1	0	0	1	1	1	0	0	1	1	19
BOSTON	1414	1179	254	53	89	263	158	129	76	25	52	1381	5073
BOURNE	57	40	5	5	3	4	12	3	0	1	1	30	161
BOXBOROUGH	1	4	0	0	1	1	0	0	0	0	0	4	11
BOXFORD	8	8	1	1	0	0	0	0	0	0	0	5	23
BOYLSTON	2	11	3	0	1	2	1	1	1	0	0	4	26
BRAINTREE	91	75	36	5	3	26	16	15	2	0	2	72	343

BREWSTER	30	28	7	0	1	5	2	0	0	6	0	20	99
BRIDGEWATER	36	33	7	2	2	3	2	0	3	1	1	11	101
BRIMFIELD	8	6	4	1	1	1	0	1	0	1	1	1	25
BROCKTON	299	204	47	13	17	37	29	13	12	5	9	189	874
BROOKFIELD	11	7	3	2	0	1	3	0	0	0	1	3	31
BROOKLINE	142	145	16	3	11	29	15	7	3	5	9	90	475
BUCKLAND	9	1	1	0	0	0	0	0	0	1	1	2	15
BURLINGTON	34	22	9	3	1	6	6	3	1	1	1	27	114
CAMBRIDGE	219	173	34	6	10	30	26	17	12	1	9	173	710
CANTON	53	46	12	1	2	4	7	2	1	1	2	32	163
CARLISLE	4	3	2	1	0	1	0	0	0	0	1	4	16
CARVER	18	24	3	2	0	3	3	1	1	1	2	13	71
CHARLEMONT	0	1	1	0	0	0	0	1	0	0	0	1	4
CHARLTON	22	14	6	3	1	7	1	1	0	1	0	18	74
CHATHAM	32	27	6	0	2	5	4	9	0	2	5	10	102
CHELMSFORD	64	49	16	7	0	10	11	3	2	0	2	35	199
CHELSEA	101	83	7	5	0	7	17	8	9	0	3	73	313
CHESHIRE	10	12	1	1	0	1	2	0	1	0	0	3	31
CHESTER	4	3	0	1	0	2	0	0	0	0	0	0	10
CHESTERFIELD	1	1	1	1	0	0	0	0	0	0	1	2	7
CHICOPEE	200	165	35	3	5	25	26	16	8	1	5	111	600
CHILMARK	2	2	0	0	0	0	0	0	1	0	0	1	6
CLARKSBURG	4	3	1	0	0	1	0	0	1	0	0	1	11
CLINTON	45	29	7	0	3	3	6	4	3	0	2	24	126
COHASSET	22	22	5	0	1	4	3	1	1	0	1	8	68
COLRAIN	3	8	1	0	2	2	1	1	0	0	0	1	19
CONCORD	23	47	25	2	3	8	5	5	1	4	2	16	141
CONWAY	2	2	0	0	0	0	0	1	0	0	0	4	9
CUMMINGTON	3	1	0	0	0	0	1	0	0	0	0	3	8
DALTON	19	14	3	0	2	6	3	2	0	2	0	14	65
DANVERS	96	50	27	2	3	18	12	4	0	1	1	42	256
DARTMOUTH	80	70	12	3	2	5	9	6	4	3	3	35	232
DEDHAM	80	53	7	5	4	6	10	4	4	2	2	57	234
DEERFIELD	14	11	4	1	1	2	2	1	1	0	1	3	41
DENNIS	60	53	17	2	5	12	14	11	0	10	2	36	222
DIGHTON	21	8	3	0	0	1	0	2	0	0	0	2	37
DOUGLAS	12	5	4	2	1	0	2	0	0	1	0	4	31
DOVER	11	6	0	0	0	0	1	0	0	1	0	2	20
DRACUT	60	45	11	2	4	1	4	2	4	0	3	28	164
DUDLEY	38	27	3	0	2	3	1	3	0	1	1	14	93
DUNSTABLE	4	3	0	0	1	1	0	0	0	0	0	1	10
DUXBURY	23	34	7	1	1	2	6	0	0	0	0	18	92
EAST BRIDGEWATER	25	21	2	3	0	3	3	1	0	3	1	14	76
EAST BROOKFIELD	1	3	1	1	0	0	0	0	0	0	0	5	11
EAST LONGMEADOW	53	32	6	1	4	11	7	1	1	2	0	24	142
EASTHAM	10	19	6	1	1	2	1	2	0	3	0	8	53
EASTHAMPTON	36	33	14	2	0	4	5	1	1	1	5	24	126
EASTON	28	33	8	1	2	3	6	3	1	0	2	18	105
EDGARTOWN	11	5	3	0	1	0	3	1	0	0	0	6	30
EGREMONT	3	4	1	0	0	0	0	0	0	0	0	1	9

TABLE C-14A (CONTINUED)
SELECTED CAUSES OF DEATH BY CITY AND TOWN OF RESIDENCE
1991

	HEART DISEASES (390-398, 402, 404-429)	MALIGNANT NEOPLASMS (140-209)	CEREBROVASCULAR DISEASE (430-438)	MOTOR VEHICLE ACCIDENTS(810-825)	OTHER ACCIDENTS (800-807,826-949)	INFLUENZA & PNEUMONIA (480-487)	CHRONIC OBSTRUCTIVE PULMONARY (490-496)	DIABETES MELLITUS (250)	CHRONIC LIVER DIS. & CIRRHOSIS (571)	ATHEROSCLEROSIS (440)	SUICIDE (950-959)	ALL OTHER CAUSES	TOTAL
ERVING	2	2	1	1	0	1	0	0	0	0	0	3	10
ESSEX	7	7	1	0	1	1	0	0	0	0	0	6	23
EVERETT	144	103	21	4	4	10	17	9	4	1	3	67	387
FAIRHAVEN	79	58	14	5	1	5	7	5	3	0	0	32	209
FALL RIVER	365	274	87	5	11	24	31	26	17	11	4	164	1019
FALMOUTH	107	77	22	1	3	17	12	7	3	3	4	53	309
FITCHBURG	132	104	34	5	6	16	13	14	11	0	3	78	416
FLORIDA	2	0	1	0	0	0	0	0	0	0	0	2	5
FOXBOROUGH	22	35	7	3	1	3	3	0	1	4	1	17	97
FRAMINGHAM	183	140	29	0	11	37	13	10	9	2	2	105	541
FRANKLIN	44	31	7	3	4	8	6	3	1	1	2	24	134
FREETOWN	7	8	2	0	0	1	2	0	1	0	0	5	26
GARDNER	75	56	13	1	0	3	9	6	1	0	2	43	209
GAY HEAD	0	0	0	0	0	0	0	0	0	0	0	0	0
GEORGETOWN	15	12	3	0	0	3	6	0	0	0	0	4	43
GILL	6	6	1	0	0	0	0	0	0	0	0	1	15
GLOUCESTER	73	85	14	4	8	15	8	3	1	4	2	55	272
GOSHEN	2	0	0	0	0	1	0	0	0	0	0	1	4
GOSNOLD	0	0	0	0	0	0	0	0	0	0	0	0	0
GRAFTON	36	25	5	1	3	4	5	2	0	1	0	17	99
GRANBY	11	13	4	0	1	1	2	3	0	0	0	7	42
GRANVILLE	1	1	1	0	0	0	0	0	0	0	0	3	6
GREAT BARRINGTON	32	24	9	2	1	7	8	0	1	1	0	20	109
GREENFIELD	64	46	19	3	3	12	11	10	4	0	4	46	222
GROTON	7	14	0	0	2	2	1	0	1	0	0	4	31
GROVELAND	13	9	0	0	0	1	2	1	0	0	1	3	30
HADLEY	15	9	4	1	2	2	5	0	0	0	0	8	46
HALIFAX	23	10	3	0	2	3	3	0	0	0	0	9	53
HAMILTON	12	8	2	1	0	0	3	1	0	0	2	11	40
HAMPDEN	17	5	1	0	1	3	3	1	1	0	2	9	43
HANCOCK	1	2	0	0	0	0	0	0	0	0	0	1	4
HANDOVER	25	30	1	2	3	2	3	3	0	0	1	10	80
HANSON	22	20	1	0	3	2	2	0	0	0	1	10	61
HARDNICK	11	2	2	2	0	0	1	0	1	0	0	4	23
HARVARD	6	4	1	0	0	2	0	0	0	0	1	5	19
HARWICH	45	46	14	3	0	2	4	4	0	10	0	24	152
HATFIELD	17	11	2	1	0	1	2	1	1	0	0	3	39
HAVERHILL	170	111	26	9	6	28	21	5	4	13	5	81	479
HAWLEY	0	1	0	0	0	0	0	0	0	0	0	0	1
HEATH	2	0	0	0	0	0	0	0	0	0	0	0	2

HINGHAM	36	53	11	0	3	6	5	5	0	0	1	26	146
HINSDALE	12	5	2	0	1	1	2	1	0	1	0	6	31
HOLBROOK	34	25	4	1	2	2	7	0	0	0	1	14	92
HOLDEN	43	37	10	2	3	9	3	4	1	2	1	17	132
HOLLAND	5	2	0	0	1	0	1	0	0	0	0	1	11
HOLLISTON	20	17	3	0	0	5	3	1	0	0	1	14	64
HOLYOKE	198	137	27	2	10	30	26	16	13	3	4	107	573
HOPEDALE	9	13	3	1	2	6	3	3	0	0	1	8	49
HOPKINTON	12	20	1	0	1	2	1	1	1	0	0	9	48
HUBBARDSTON	5	2	1	0	0	0	0	1	0	0	0	2	11
HUDSON	46	43	5	2	1	2	4	0	3	0	0	22	128
HULL	26	22	1	2	1	6	2	2	2	0	0	17	81
HUNTINGTON	2	2	1	0	0	1	0	1	0	0	0	2	9
IPSWICH	28	30	3	1	0	1	9	7	2	0	0	32	113
KINGSTON	23	18	3	2	0	3	3	2	0	0	1	11	66
LAKEVILLE	22	11	3	1	2	2	2	1	1	1	0	7	53
LANCASTER	25	9	1	0	0	1	2	0	1	0	1	9	49
LANESBOROUGH	12	7	1	1	0	0	2	1	0	0	0	3	27
LAWRENCE	212	128	46	2	10	23	26	15	4	2	7	102	577
LEE	17	18	7	1	0	9	2	0	0	1	0	15	70
LEICESTER	20	21	1	2	0	1	4	1	0	0	0	11	61
LENOX	25	14	5	0	2	5	3	2	0	0	1	25	82
LEOMINSTER	105	102	17	5	3	12	15	4	6	0	2	79	350
LEVERETT	2	4	0	0	0	0	0	0	0	0	0	3	9
LEXINGTON	73	68	16	1	0	16	11	4	1	1	2	54	247
LEYDEN	3	0	2	0	0	0	0	0	0	0	1	0	6
LINCOLN	10	11	3	1	1	4	1	1	0	0	0	3	35
LITTLETON	18	10	8	0	0	2	6	5	1	0	0	6	56
LONGMEADOW	52	32	14	1	0	7	0	2	1	0	1	38	148
LOWELL	295	231	66	10	9	36	37	19	28	14	8	213	966
LUDLOW	52	47	6	3	0	4	7	7	0	0	0	18	144
LUNENBURG	19	14	4	0	3	2	2	0	0	0	1	16	61
LYNN	311	205	50	10	16	34	34	14	14	3	9	152	852
LYNNFIELD	18	24	5	4	1	3	2	2	0	1	1	16	77
MALDEN	181	146	35	3	8	20	22	15	4	4	5	94	537
MANCHESTER	13	15	0	0	1	3	0	1	0	1	0	12	46
MANSFIELD	35	13	4	2	0	1	0	3	0	0	0	13	71
MARBLEHEAD	54	42	14	1	4	6	9	3	3	1	1	23	161
MARION	12	9	5	0	0	3	2	0	0	0	1	6	38
MARLBOROUGH	77	57	10	2	3	14	11	8	6	1	1	50	240
MARSHFIELD	44	47	4	2	2	1	1	4	1	1	0	26	133
MASHPEE	22	16	3	1	1	2	3	2	0	0	3	12	65
MATTAPOISETT	24	12	1	0	1	2	2	1	0	0	0	7	50
MAYNARD	23	14	3	2	3	2	4	0	0	0	1	11	63
MEDFIELD	23	10	1	2	1	1	1	1	0	2	1	11	54
MEDFORD	196	151	50	3	7	32	19	20	6	3	7	114	608
MEDWAY	20	18	2	0	3	4	0	0	0	0	0	20	67
MELROSE	94	69	20	2	3	9	13	6	4	2	1	41	265
MENDON	13	11	2	1	0	2	1	1	0	1	0	2	33
MERRIMAC	12	12	1	1	0	2	1	0	0	0	2	3	34

TABLE C-14A (CONTINUED)
SELECTED CAUSES OF DEATH BY CITY AND TOWN OF RESIDENCE
1991

	HEART DISEASES (390-398, 402, 404-429)	MALIGNANT NEOPLASMS (140-209)	CEREBROVASCULAR DISEASE (430-438)	MOTOR VEHICLE ACCIDENTS(810-825)	OTHER ACCIDENTS (800-807,826-949)	INFLUENZA & PNEUMONIA (480-487)	CHRONIC OBSTRUCTIVE PULMONARY (490-496)	DIABETES MELLITUS (250)	CHRONIC LIVER DIS. & CIRRHOSIS (571)	ATHEROSCLEROSIS (440)	SUICIDE (950-959)	ALL OTHER CAUSES	TOTAL
METHUEN	176	95	22	3	4	12	15	5	4	1	3	49	389
MIDDLEBOROUGH	52	38	7	6	2	4	4	1	0	0	4	27	145
MIDDLEFIELD	0	0	0	0	0	1	0	0	0	0	0	1	2
MIDDLETON	10	15	4	0	0	1	1	0	1	0	1	6	39
MILFORD	54	66	7	3	2	10	4	3	2	0	1	33	185
MILLBURY	27	37	8	0	3	7	3	3	2	0	2	33	125
MILLIS	9	12	2	0	1	0	3	1	0	0	1	8	37
MILLVILLE	3	6	1	0	1	2	2	1	1	0	0	3	20
MILTON	96	74	14	1	4	19	18	6	1	1	0	47	281
MONROE	0	0	0	0	0	0	0	0	0	0	0	0	0
MONSON	22	13	6	1	1	3	0	3	0	0	0	11	60
MONTAGUE	30	25	8	1	1	9	9	2	2	0	0	19	106
MONTREY	6	2	0	0	0	0	0	0	0	0	0	1	9
MONTGOMERY	0	1	0	0	0	0	0	0	0	0	0	2	3
MOUNT WASHINGTON	0	1	0	0	0	0	0	0	0	0	0	0	1
NAHANT	12	10	4	1	0	1	1	1	1	1	0	4	36
NANTUCKET	16	12	8	1	2	3	4	1	0	1	1	7	56
NATICK	81	79	21	4	2	14	6	5	3	0	0	42	257
NEEDHAM	80	77	17	2	0	7	12	3	1	3	4	44	250
NEW ASHFORD	1	0	0	0	0	0	0	0	0	0	0	0	1
NEW BEDFORD	369	254	97	12	21	44	46	39	15	19	10	196	1122
NEW BRAINTREE	0	2	0	1	0	0	0	0	0	0	0	0	3
NEW MARLBOROUGH	2	7	0	2	0	2	1	0	0	0	0	1	15
NEW SALEM	0	3	1	1	0	0	0	0	0	0	0	0	5
NEWBURY	12	16	5	1	2	0	2	0	1	0	2	7	48
NEWBURYPORT	73	32	10	1	3	1	3	7	2	2	1	26	161
NEWTON	210	171	50	6	13	37	24	16	4	7	4	116	658
NORFOLK	9	10	3	2	0	1	0	0	0	0	0	3	28
NORTH ADAMS	75	39	15	2	4	6	6	5	1	2	0	27	182
NORTH ANDOVER	76	38	10	2	5	11	10	4	2	3	4	31	196
NORTH ATTLEBORO	46	46	11	2	0	5	11	5	1	0	0	31	158
NORTH BROOKFIELD	11	6	2	0	0	1	1	2	0	0	0	9	32
NORTH READING	30	21	5	0	0	1	7	1	1	0	0	14	80
NORTHAMPTON	93	73	20	4	8	19	17	6	3	2	6	53	304
NORTHBOROUGH	23	15	3	1	0	7	3	0	1	0	1	21	75
NORTHBRIDGE	37	28	6	0	1	5	5	6	1	0	1	35	125
NORTHFIELD	11	3	2	0	1	0	1	0	0	0	0	3	21
NORTON	23	20	4	0	2	2	3	5	0	1	0	14	74
NORWELL	27	23	4	1	0	3	1	0	0	0	0	7	66
NORWOOD	94	79	22	3	4	7	9	5	2	2	1	39	267

OAK BLUFFS	17	9	3	1	0	0	0	2	1	0	0	0	0	0	10	43
OAKHAM	1	5	0	0	0	0	0	0	0	0	0	0	0	0	2	10
ORANGE	21	16	1	3	2	1	1	0	2	0	0	0	0	1	15	62
ORLEANS	29	28	9	0	1	1	1	4	5	0	3	0	0	0	11	91
OTIS	4	2	1	0	0	0	0	0	0	0	0	0	0	0	1	8
OXFORD	29	26	9	1	0	5	5	7	2	0	1	0	0	2	11	93
PALMER	32	30	6	2	4	1	1	4	4	1	0	0	0	1	24	109
PAXTON	3	6	1	1	1	0	0	2	1	0	0	0	0	0	1	16
PEABODY	140	121	20	1	9	15	4	4	7	7	0	0	0	4	56	384
PELHAM	4	1	0	0	0	0	0	0	1	0	0	0	0	0	0	6
PENBROKE	25	25	4	1	2	1	1	4	1	1	0	0	0	3	11	78
PEPPERELL	13	12	2	0	0	1	1	6	3	0	0	0	0	1	11	49
PETU	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3
PETERSHAM	3	4	1	0	0	1	1	0	0	0	0	0	0	0	0	9
PHILLIPSTON	2	4	0	0	0	0	0	0	0	0	0	0	0	0	1	7
PITTSFIELD	187	128	34	9	7	23	18	0	10	3	0	0	0	5	84	513
PLAINFIELD	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
PLAINVILLE	20	14	1	2	1	1	5	0	0	1	0	0	0	0	12	57
PLYMOUTH	130	97	17	6	4	10	15	7	8	0	5	2	2	0	54	355
PLYMPTON	1	2	2	1	0	0	0	0	0	0	0	0	0	0	4	10
PRINCETON	3	2	1	0	1	1	0	0	0	0	0	0	0	0	3	11
PROVINCETOWN	19	16	3	0	0	4	5	0	1	3	2	0	0	0	19	72
QUINCY	293	248	56	7	18	47	48	0	17	13	6	9	2	9	183	950
RANDOLPH	94	83	18	5	7	22	8	0	7	3	2	2	1	2	47	298
RAYNHAM	19	21	2	2	2	0	1	0	2	1	1	1	1	1	7	50
READING	73	53	11	2	3	4	5	0	3	2	2	2	2	2	26	186
REHOBOTH	15	8	4	1	0	1	1	0	1	1	0	0	0	0	5	37
REVERE	167	153	14	2	6	21	20	0	13	8	2	3	2	3	91	500
RICHMOND	1	4	1	0	1	1	0	0	0	0	0	0	0	0	0	7
RICHESTER	10	5	3	3	1	0	0	0	0	0	0	0	0	0	2	24
ROCKLAND	37	44	11	2	2	0	9	0	6	1	1	3	1	3	21	137
ROCKPORT	32	24	8	0	4	2	2	0	1	0	1	1	1	1	14	89
ROME	1	3	0	0	1	1	0	0	0	0	0	0	0	0	0	6
ROULEY	9	6	2	2	0	1	2	0	1	0	0	1	0	1	6	30
ROYALSTON	0	2	1	0	0	0	0	0	0	0	0	0	0	0	2	5
RUSSELL	2	2	0	1	0	2	1	0	0	0	0	0	0	0	2	10
RUTLAND	8	12	2	0	1	1	1	1	0	0	1	0	0	0	9	35
SALEM	117	102	16	3	3	16	14	0	8	9	0	3	0	3	74	365
SALISBURY	20	14	2	1	3	3	2	0	0	2	0	1	0	1	9	57
SANDISFIELD	2	2	1	0	0	0	0	0	1	0	0	0	0	0	5	11
SANDWICH	46	29	9	1	4	3	6	0	4	0	0	1	0	1	19	122
SAUGUS	77	61	19	5	3	9	8	0	4	1	2	0	0	0	39	228
SAVOY	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
SCITUATE	49	53	12	0	4	6	2	0	3	0	1	3	0	3	24	157
SEEKONK	36	28	1	0	2	5	1	0	2	1	0	1	0	1	9	86
SHARON	25	27	0	1	1	1	2	0	1	1	1	1	1	1	11	73
SHEFFIELD	8	5	0	1	0	2	0	0	2	0	1	0	0	0	6	25
SHELBURNE	9	7	4	1	2	2	2	0	1	0	0	0	0	0	3	31
SHERBORN	4	8	2	0	2	3	1	1	1	0	0	0	0	0	4	25
SHIRLEY	7	11	3	3	1	1	0	0	0	1	0	0	0	1	12	40

TABLE C-14A (CONTINUED)
SELECTED CAUSES OF DEATH BY CITY AND TOWN OF RESIDENCE
1991

	HEART DISEASES (390-398, 402, 404-429)	MALIGNANT NEOPLASMS (140-209)	CEREBROVASCULAR DISEASE (430-438)	MOTOR VEHICLE ACCIDENTS(810-825)	OTHER ACCIDENTS (800-807,826-949)	INFLUENZA & PNEUMONIA (480-487)	CHRONIC OBSTRUCTIVE PULMONARY (490-496)	DIABETES MELLITUS (250)	CHRONIC LIVER DIS. & CIRRHOSIS (571)	ATHEROSCLEROSIS (440)	SUICIDE (950-959)	ALL OTHER CAUSES	TOTAL
SHREWSBURY	72	43	15	1	2	14	11	2	1	3	0	43	207
SHUTESBURY	3	2	0	0	1	0	0	0	0	0	0	3	9
SOMERSET	67	43	10	1	0	3	4	8	1	6	3	21	167
SOMERVILLE	220	172	35	7	8	19	20	14	3	6	6	123	633
SOUTH HADLEY	45	45	12	1	5	3	6	2	1	1	1	23	145
SOUTHAMPTON	11	6	0	0	0	1	3	3	0	0	2	3	29
SOUTHBOROUGH	7	16	3	0	1	3	1	1	1	0	0	7	40
SOUTHBRIIDGE	54	33	14	4	1	9	4	4	3	0	0	34	160
SOUTHWICK	20	18	0	0	2	1	1	2	1	0	0	5	50
SPENCER	34	34	1	1	0	1	3	2	0	0	0	17	93
SPRINGFIELD	463	388	100	27	22	84	66	42	13	12	14	336	1567
STERLING	13	9	3	1	0	0	2	0	0	1	0	5	34
STOCKBRIDGE	6	7	2	2	0	1	1	1	0	1	0	6	27
STONEHAM	64	63	15	3	3	10	4	6	1	2	4	36	211
STOUGHTON	85	62	14	1	1	8	4	7	3	0	0	35	220
STON	9	9	1	1	0	2	0	0	0	0	1	2	25
STURBRIDGE	10	20	3	1	0	2	5	3	0	1	0	10	55
SUDBURY	11	19	5	2	2	2	4	0	0	0	1	11	57
SUNDERLAND	7	3	2	0	1	3	0	1	0	0	1	2	20
SUTTON	19	8	2	1	2	2	2	0	0	0	0	12	48
SHAMPSCOTT	62	39	8	2	0	5	9	4	1	3	3	24	160
SWANSEA	43	35	8	2	4	0	2	3	2	1	1	11	112
TAUNTON	156	115	35	7	6	34	18	11	5	3	8	57	455
TEMPLETON	20	16	3	2	0	1	2	2	1	0	0	6	53
TEWKSBURY	52	59	7	4	2	7	10	3	1	3	4	33	185
TISBURY	8	12	0	1	1	1	2	0	0	0	1	9	35
TOLLAND	0	3	0	0	0	0	0	0	0	0	0	0	3
TOPSFIELD	5	5	2	0	1	5	4	2	1	0	1	11	37
TONSEND	9	12	3	0	1	0	3	1	1	0	0	4	34
TRURO	6	6	2	0	0	0	1	0	0	0	0	4	19
TYNGBOROUGH	11	16	1	2	0	2	6	1	0	1	1	8	49
TYRINGHAM	0	1	1	0	0	0	0	0	0	0	0	1	3
UPTON	6	13	1	0	0	0	0	2	0	0	0	4	26
UXBRIDGE	23	23	1	0	0	1	1	2	0	0	0	13	67
WAKEFIELD	74	57	11	1	4	11	8	7	4	3	3	36	219
WALES	2	2	0	2	0	0	0	0	0	0	0	1	7
WALPOLE	29	29	7	2	0	0	6	4	0	0	0	26	111
WALTHAM	153	143	38	8	10	26	18	13	6	6	3	92	516
WARE	37	36	8	0	1	1	4	1	0	1	1	20	110
WAREHAM	80	69	11	3	3	10	10	2	4	1	2	35	230

WARREN	10	11	1	1	0	3	2	1	0	0	0	2	4	35
WARWICK	1	2	1	0	0	0	1	0	0	0	0	0	0	5
WASHINGTON	1	0	0	0	2	2	0	0	0	0	0	0	2	5
WATERTOWN	90	85	22	2	8	21	15	11	6	2	2	0	84	346
WAYLAND	20	30	10	0	1	0	4	1	2	1	2	2	12	83
WEBSTER	69	50	7	2	0	12	3	9	3	0	0	1	34	190
WELLESLEY	49	55	10	3	1	9	7	3	0	2	2	3	36	178
WELLFLEET	7	10	0	0	1	1	3	0	0	0	1	1	3	26
WENDELL	0	1	1	0	0	0	0	0	0	0	0	0	0	2
WENHAM	12	14	1	0	0	1	1	2	1	0	0	0	3	35
WEST BOYLSTON	21	12	0	0	2	3	4	1	1	0	0	0	5	49
WEST BRIDGEWATER	24	16	1	2	0	5	3	0	0	1	0	0	4	56
WEST BROOKFIELD	9	7	5	0	0	3	1	1	0	0	0	0	4	30
WEST NEWBURY	1	3	1	0	0	0	2	0	0	0	0	0	2	9
WEST SPRINGFIELD	91	85	23	0	4	14	14	7	3	2	2	2	64	309
WEST STOCKBRIDGE	3	1	1	0	0	0	0	1	0	0	0	0	0	6
WEST TISBURY	4	0	0	0	0	1	1	0	0	0	0	0	1	7
WESTBOROUGH	38	33	12	3	0	12	6	3	2	0	0	0	27	136
WESTFIELD	95	82	17	9	3	24	9	8	2	5	4	4	50	308
WESTFORD	17	21	3	2	2	1	3	2	1	1	1	1	18	72
WESTHAMPTON	1	1	0	0	0	0	1	0	0	0	0	0	1	4
WESTMINSTER	12	20	3	2	0	0	0	0	0	0	1	1	8	46
WESTON	28	19	10	2	4	9	4	3	0	0	0	0	20	99
WESTPORT	32	32	3	2	1	1	5	4	2	0	0	0	19	101
WESTWOOD	41	30	7	0	1	5	5	1	1	3	0	0	25	119
WEYMOUTH	134	134	49	4	6	22	18	15	7	0	5	5	92	486
WHATELY	3	2	3	0	0	1	0	1	0	0	0	0	2	12
WHITMAN	26	44	3	1	1	4	6	2	2	0	1	1	15	105
WILBRAHAM	33	30	5	0	1	2	7	4	0	0	1	1	17	100
WILLIAMSBURG	3	5	2	0	0	3	2	2	0	1	0	0	5	23
WILLIAMSTOWN	32	10	4	0	2	4	7	3	3	2	1	1	13	81
WILMINGTON	41	35	3	3	3	4	9	2	3	0	0	0	24	127
WINCHENDON	20	15	2	3	2	3	0	4	0	0	0	0	10	59
WINCHESTER	50	31	11	2	2	10	2	2	1	3	2	2	33	149
WINOSOR	1	2	0	0	0	0	0	0	0	0	0	0	0	3
WINTHROP	57	47	13	1	1	10	6	8	2	0	0	0	52	197
WOBURN	90	87	16	1	1	9	10	5	5	4	3	3	60	291
WORCESTER	680	442	80	17	25	98	79	37	13	12	14	438	1935	
WORTHINGTON	1	2	1	0	0	0	0	0	0	0	1	1	1	6
WRENTHAM	32	17	3	1	0	1	4	3	1	2	0	0	16	80
YARMOUTH	102	84	31	6	5	16	17	9	3	8	3	3	53	337
STATE TOTAL	17098	13784	3269	619	793	2388	2093	1241	604	387	504	10230	53010	

TABLE C-14B
SELECTED CAUSES OF DEATH BY COUNTY OF RESIDENCE
1991

	HEART DISEASES (390-398, 402, 404-429)	MALIGNANT NEOPLASMS (140-209)	CEREBROVASCULAR DISEASE (430-438)	MOTOR VEHICLE ACCIDENTS (810-825)	OTHER ACCIDENTS (800-807, 826-949)	INFLUENZA & PNEUMONIA (480-487)	CHRONIC OBSTRUCTIVE PULMONARY (490-496)	DIABETES MELLITUS (250)	CHRONIC LIVER DIS. & CIRRHOSIS (571)	ATHEROSCLEROSIS (440)	SUICIDE (950-959)	ALL OTHER CAUSES	TOTAL
BARNSTABLE	709	589	170	24	35	93	115	69	13	55	22	392	2286
BERKSHIRE	519	343	99	22	22	79	62	35	11	11	8	265	1476
BRISTOL	1546	1170	328	54	57	152	164	132	61	47	36	700	4447
DUKES	42	28	6	2	2	2	8	2	1	0	1	27	121
ESSEX	2138	1525	382	62	95	260	245	120	67	46	65	1032	6037
FRANKLIN	201	155	53	12	16	35	28	22	8	1	9	111	651
HAMPDEN	1432	1145	264	59	60	230	178	121	47	26	39	865	4466
HAMPSHIRE	339	289	83	13	24	43	56	23	10	6	20	184	1090
MIDDLESEX	3507	2990	744	116	165	510	433	243	144	78	103	2160	11193
NANTUCKET	16	12	8	1	2	3	4	1	0	1	1	7	56
NORFOLK	1671	1453	324	60	80	249	221	110	48	37	53	996	5302
PLYMOUTH	1165	987	183	56	58	130	127	59	36	24	38	597	3460
SUFFOLK	1739	1462	288	61	96	301	201	158	95	27	58	1597	6083
WORCESTER	2074	1636	337	77	81	301	251	146	63	23	51	1297	6342
STATE TOTAL	17098	13784	3269	619	793	2388	2093	1241	604	387	504	10230	53010

TABLE C-15
RESIDENT DEATHS BY CAUSE, SEX, AND RACE
1991

ICD. LIST NUMBER	CAUSE OF DEATH	TOTALS				WHITE				BLACK				OTHER			
		TOT		FEM		TOT		MALE		FEM		TOT		MALE		FEM	
		1532	925	607	544	1347	803	15	117	175	58	10	5	10	5	10	5
*001-139	I. INFECTIVE AND PARASITIC DISEASES	36	17	19	19	34	15	1	2	0	0	0	0	0	0	0	0
001-009	INTestinal Infections	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0
005	SHIGELLA DYSENTERIAE	33	15	18	18	31	13	1	2	2	0	0	0	0	0	0	0
008	INTESTINAL INFECTION DUE TO ESCHERICHIA COLI	2	2	1	1	2	1	1	1	0	0	0	0	0	0	0	0
009	INFECT COLITIS, ENTERITIS, GASTROENTERITIS	25	15	10	7	19	12	4	3	5	2	1	0	1	0	1	0
010-018	TUBERCULOSIS	17	12	5	4	14	10	3	2	2	0	1	0	1	0	1	0
011	TUBERCULOSIS OF LUNG, INFILTRATIVE	4	1	3	3	3	0	0	1	1	0	0	0	0	0	0	0
015	TUBERCULOSIS OF VERTEBRAL COLUMN	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
017	TB OF SKIN AND SUBCUT CELLULAR TISSUES	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
018	ACUTE MILIARY TUBERCULOSIS	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0
020-027	ZOOONOTIC BACTERIAL DISEASES	666	269	397	375	623	248	1	0	0	0	0	0	0	0	0	0
027	LISTERIOSIS (BACTERIAL DISEASE)	3	3	0	0	1	1	0	0	0	0	0	0	0	0	0	0
030-041	OTHER BACTERIAL DISEASES	5	3	2	2	4	2	2	2	1	0	0	0	0	0	0	0
031	PULMONARY DISEASES DUE TO MYCOBACTERIA	644	255	389	367	605	238	3	3	1	0	0	0	0	0	0	0
036	MENINGOCOCCAL MENINGITIS	2	1	1	1	2	1	1	1	0	0	0	0	0	0	0	0
038	STREPTOCOCCAL SEPTICAEMIA	8	3	5	5	8	3	2	2	1	0	0	0	0	0	0	0
039	CUTANEOUS ACTINOMYCOTIC INFECTION	632	535	97	66	513	447	3	3	0	0	0	0	0	0	0	0
040	GAS GANGRENE (BACTERIAL DISEASES)	595	505	90	59	485	426	2	2	1	0	0	0	0	0	0	0
041	STREPTOCOCCUS BACTERIAL INFECTION	3	2	1	1	3	2	1	1	0	0	0	0	0	0	0	0
042-044	AIDS, ARC AND ARV	34	28	6	6	25	19	6	5	9	0	0	0	0	0	0	0
042	AIDS	11	6	5	5	10	5	5	1	1	0	0	0	0	0	0	0
043	ARC CAUSING LYMPHADENOPATHY	11	6	5	5	10	5	5	1	1	0	0	0	0	0	0	0
044	ARV, AAV, LAV, HIV CAUSING ACUTE INFECTIONS	12	5	7	7	11	4	7	0	0	0	0	0	0	0	0	0
045-049	POLIO MYELITIS AND OTHER ENTEROVIRUS DIS. OF CENTRAL NERVOUS SYSTEM	3	0	3	3	3	0	3	0	0	0	0	0	0	0	0	0
046	KURU VIRUS INFECTION OF CNS	6	2	4	4	6	2	4	0	0	0	0	0	0	0	0	0
050-057	VIRAL DISEASES ACCOMPANIED BY EXANTHEM	3	0	3	3	3	0	3	0	0	0	0	0	0	0	0	0
052	CHICKENPOX	6	2	4	4	6	2	4	0	0	0	0	0	0	0	0	0
053	HERPES ZOSTER WITH MENINGITIS	3	3	0	0	2	2	0	0	0	0	0	0	0	0	0	0
054	HERPES SIMPLEX, ECZEMA HERPETICUM	57	34	23	19	52	33	19	3	0	3	1	1	2	1	1	1
070-079	OTHER VIRAL DISEASES	43	25	18	14	38	24	14	3	0	3	2	1	1	0	0	0
070	VIRAL HEPATITIS A WITH HEPATIC COMA	8	7	1	1	8	7	1	0	0	0	0	0	0	0	0	0
078	MOLLUSCUM CONTAGIOSUM OTHER VIRUSES	6	2	4	4	6	2	4	0	0	0	0	0	0	0	0	0
079	ADENOVIRUS, UNSPECIFIED SITE	2	2	0	0	2	2	0	0	0	0	0	0	0	0	0	0
080-088	RICKETTSIOSIS AND OTHER ARTHROPOD-BORNE DISEASES	2	2	0	0	2	2	0	0	0	0	0	0	0	0	0	0
086	TRYPANOSOMIASIS, CHAGAS WITH HEART INVOLV	2	2	0	0	2	2	0	0	0	0	0	0	0	0	0	0
090-099	SYPHILIS AND OTHER VENEREAL DISEASES	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0
090	EARLY CONGENITAL SYPHILIS, SYMPTOMATIC	42	16	26	26	41	15	26	1	1	0	0	0	0	0	0	0
110-118	MYCOSES	15	4	11	11	15	4	11	0	0	0	0	0	0	0	0	0
112	CANDIDIASIS OF MOUTH	2	2	0	0	2	2	0	0	0	0	0	0	0	0	0	0
115	INFECTION BY HISTOPLASMA CAPSULATUM	25	10	15	15	24	9	15	1	1	0	0	0	0	0	0	0
117	RHINOSPORIDIOSIS MYCOSES	39	22	17	14	32	18	14	7	4	3	0	0	0	0	0	0
130-136	OTHER INFECTIVE AND PARASITIC DISEASES	5	3	2	2	5	3	2	0	0	0	0	0	0	0	0	0
130	TOXOPLASMOSIS	10	3	7	7	7	2	5	3	1	2	0	0	0	0	0	0
135	SARCIDOSIS	24	16	8	7	20	13	7	4	3	1	0	0	0	0	0	0
136	AINHUM	8	3	5	5	8	3	5	0	0	0	0	0	0	0	0	0
137-139	LATE EFFECTS OF INFECTIOUS AND PARASITIC DISEASES	6	3	3	3	6	3	3	0	0	0	0	0	0	0	0	0
137	LATE EFFECTS RESPIRATORY OR UNSP TB																

1991

ICD. LIST NUMBER	CAUSE OF DEATH I. INFECTIVE AND PARASITIC DISEASES (CONTINUED)	T O T A L S		W H I T E		B L A C K		O T H E R					
		TOT	MALE	FEM	TOT	MALE	FEM	TOT	MALE	FEM			
138	LATE EFFECTS ACUTE POLIOMYELITIS	2	0	2	2	0	2	0	0	0	0	0	0
139		13993	6993	7000									
140-149	II. NEOPLASMS MALIGNANT NEOPLASM OF LIP, ORAL CAVITY AND PHARYNX	203	133	70	13492	6725	6767	417	224	193	84	44	40
140	MALIGNANT NEOPLASM OF UPPER LIP	3	1	2	3	1	2	0	0	0	0	0	0
141	MALIG NEOP BASE OF TONGUE	40	27	13	39	26	13	1	1	0	0	0	0
142	MALEG NEOP PAROTID GLAND	14	10	4	14	10	4	0	0	0	0	0	0
143	MALIG NEOP UPPER GUM	2	2	0	1	1	0	1	1	0	0	0	0
144	MALIG NEOP ANTERIOR PORTION FLOOR MOUTH	15	10	5	15	10	5	0	0	0	0	0	0
145	MALIG NEOP CHEEK MUCOSA	43	28	15	42	27	15	1	1	0	0	0	0
146	MALIG NEOP OF TONSIL	34	23	11	33	22	11	1	1	0	0	0	0
147	MALIG NEOP NASOPHARYNX SUPERIOR WALL	12	6	6	12	6	6	0	0	0	0	0	0
148	MALIG NEOP HYPOPHARYNX POSTERIOR REG	12	11	1	11	10	1	1	1	0	0	0	0
149	MALIG NEOP PHARYNX,UNSPECIFIED	28	15	13	26	13	13	2	2	0	0	0	0
150-159	MALIGNANT NEOPLASM OF DIGESTIVE ORGANS AND PERITONEUM	3570	1813	1757	3444	1741	1703	101	55	46	25	17	8
150	MALIG NEOP CERVICAL PT OESOPHAGUS	282	209	73	269	200	69	12	8	4	1	1	1
151	MALIG NEOP OF STOMACH,CARDIA	421	243	173	399	233	166	16	10	6	6	5	1
152	MALIG NEOP OF DUODENUM	35	21	14	34	20	14	1	1	0	0	0	0
153	MALIG NEOP OF HEPATIC FLEXURE	1450	672	778	1419	659	760	26	10	16	5	3	2
154	MALIG NEOP OF RECTOSIGMOID JUNCTION	272	133	139	263	128	135	7	4	3	2	1	1
155	MALIG NEOP OF LIVER PRIMARY	223	146	77	206	134	72	11	7	4	6	5	1
156	MALIG NEOP OF GALL BLADDER	123	50	73	119	48	71	3	1	2	1	1	0
157	MALIG NEOP HEAD OF PANCREAS	684	301	383	657	287	370	24	13	11	3	1	2
158	MALIG NEOP OF RETROPERITONEUM	14	4	10	13	3	10	1	1	0	0	0	0
159	MALIG NEOP INTESTINAL TRACT PT UNSPEC	66	29	37	65	29	36	0	0	0	1	0	1
160-165	MALIGNANT NEOPLASM OF RESPIRATORY AND INTRATHORACIC ORGANS	3631	2177	1454	3512	2096	1416	102	70	32	17	11	6
160	MALIG NEOP OF NASAL CAVITIES	7	3	4	6	3	3	1	0	1	0	0	0
161	MALIG NEOP GLOTTIS LARYNX	107	77	30	101	71	30	5	5	0	1	1	0
162	MALIG NEOP OF TRACHEA	3502	2086	1416	3391	2012	1379	95	64	31	16	10	6
163	MALIG NEOP OF PLEURA PARIETAL	11	9	2	10	8	2	1	1	0	0	0	0
164	MALIG NEOP OF THYMUS	4	2	2	4	2	2	0	0	0	0	0	0
170-175	MALIGNANT NEOPLASM OF BONE, CONNECTIVE TISSUE, SKIN, AND BREAST	1637	199	1438	1579	195	1384	49	3	46	9	1	8
170	MALIG NEOP BONES OF SKULL AND FACE	24	14	10	23	14	9	1	0	1	0	0	0
171	MALIG NEOP OF HEAD FACE AND NECK	67	33	34	65	32	33	1	0	1	1	1	0
172	MALIG MELANOMA OF LIP	159	105	54	159	105	54	0	0	0	0	0	0
173	MALIG NEOP OF SKIN OF LIP	62	43	19	59	40	19	3	3	0	0	0	0
174	MAL NEOP NIPPLE & AREOLA OF FEM BREAST	1321	0	1321	1269	0	1269	44	0	44	8	0	8
175	MAL NEOP OF MALE BREAST EXCL SKIN BREAST	4	4	0	4	4	0	0	0	0	0	0	0
179-189	MALIGNANT NEOPLASM OF GENITOURINARY ORGANS	2074	1215	859	1983	1164	819	81	47	34	10	4	6
179	MAL NEOP UTERUS,PART UNSPECIFIED	60	0	60	59	0	59	1	0	1	0	0	0
180	MALIG NEOP ENDOCERVIX CERVIX UTERI	84	0	84	76	0	76	7	0	7	1	0	1
182	MAL NEOP CORPUS UTERI,EXCEPT ISTHMUS	97	0	97	91	0	91	6	0	6	0	0	0

TABLE C-15

1991

ICD. LIST NUMBER	CAUSE OF DEATH III. ENDOCRINE, NUTRITIONAL, AND METABOLIC DISEASES	T O T A L S		W H I T E		B L A C K		O T H E R	
		TOT MALE	FEM	TOT MALE	FEM	TOT MALE	FEM	TOT MALE	FEM
*240	279	1693	723	1609	683	80	34	9	6
			975		926		46		3
240-246	DISORDERS OF THYROID GLAND	32	6	32	6	0	0	0	0
240	GOITRE, SPECIFIED AS SIMPLE	1	0	1	0	0	0	0	0
242	TOXIC DIFFUSE GOITRE	4	0	4	0	0	0	0	0
243	CONGENITAL HYPOTHYROIDISM	1	1	1	1	0	0	0	0
244	POSTSURGICAL HYPOTHYROIDISM	25	5	25	5	0	0	0	0
246	DISORDERS OF THYROIDAL SECRETION	1	0	1	0	0	0	0	0
250-259	DISEASES OF OTHER ENDOCRINE GLANDS	1254	544	1176	509	69	29	9	6
250	DIABETES MELLITUS WITHOUT MEN OF COMPLICATION	1241	543	1163	503	69	29	9	6
251	HYPOLYCAEMIC COMA	3	0	3	0	0	0	0	0
252	HYPERTHYROIDISM	1	0	1	0	0	0	0	0
253	ACROMEGALY AND GIGANTISM	2	0	2	0	0	0	0	0
255	CUSHING'S SYNDROME	7	1	7	1	0	0	0	0
260-269	NUTRITIONAL DEFICIENCIES	74	19	74	19	0	0	0	0
260	KWASHIORKOR	3	0	3	0	0	0	0	0
261	NUTRITIONAL MARASMUS	3	1	3	1	0	0	0	0
263	MALNUTRITION OF MODERATE DEGREE	67	18	67	18	0	0	0	0
269	DEFICIENCY OF VITAMIN K	1	0	1	0	0	0	0	0
270-279	OTHER METABOLIC AND IMMUNITY DISORDERS	338	154	327	149	11	5	0	0
270	DISTURBANCES OF AMINO-ACID TRANSPORT	1	0	1	0	0	0	0	0
271	GLYCOGENOSIS	2	1	2	1	0	0	0	0
272	PURE HYPERCHOLESTEROLAEMIA	31	15	30	15	1	0	0	0
273	POLYCLONAL HYPERGAMGLOBULINAEMIA	14	10	14	10	0	0	0	0
275	DISORDERS OF IRON METABOLISM	11	4	11	4	0	0	0	0
276	HYPEROSMOLALITY AND/OR HYPERNATRAEMIA	185	61	183	61	2	0	0	0
277	CYSTIC FIBROSIS	43	25	40	24	3	1	0	0
278	OBESITY	26	18	24	17	2	1	0	0
279	DEFICIENCY OF HUMORAL IMMUNITY	25	20	22	17	3	3	0	0
*280	289	253	111	236	103	17	8	0	0
	IV. DISEASES OF THE BLOOD AND BLOOD-FORMING ORGANS		142		133		9		0
280	IRON DEFICIENCY ANAEMIAS	1	0	1	0	0	0	0	0
281	PERNICIOUS ANAEMIA	6	1	6	1	0	0	0	0
282	HEREDITARY SPHEROCYTOSIS	11	6	5	4	6	2	0	0
283	AUTOMALIGNE HAEMOLYTIC ANAEMIAS	6	3	6	3	0	0	0	0
284	CONSTITUTIONAL APLASTIC ANAEMIA	44	17	42	17	2	0	0	0
285	SIDERBLASTIC ANEMIA	58	21	59	21	0	0	0	0
286	CONGENITAL FACTOR VIII DISORDER	32	14	30	12	2	2	0	0
287	ALLERGIC PURPURA	18	9	15	7	3	2	0	0
288	AGRAULOCYTOSIS DISEASE WHITE BLOOD CELL	15	7	15	7	0	0	0	0
289	SECONDARY POLYCYTHAEMIA	62	33	58	31	4	2	0	0

1991

ICD LIST NUMBER	CAUSE OF DEATH	T O T A L S			W H I T E			B L A C K			O T H E R		
		TOT	MALE	FEM	TOT	MALE	FEM	TOT	MALE	FEM	TOT	MALE	FEM
*290-319	V. MENTAL DISORDERS	716	268	448	690	255	435	23	11	12	3	2	1
290-294	ORGANIC PSYCHOTIC CONDITIONS	266	84	182	257	79	178	8	4	4	1	1	0
290	SENILE DEMENTIA, SIMPLE TYPE	262	82	180	253	77	176	8	4	4	1	1	0
291	DELIRIUM TREMENS	4	2	2	4	2	2	0	0	0	0	0	0
295-299	OTHER PSYCHOSES	240	74	166	232	72	160	7	2	5	1	0	1
295	SIMPLE TYPE SCHIZOPHRENIC PSYCHOSES	13	6	7	13	6	7	0	0	0	0	0	0
296	MANIC-DEPRESSIVE PSYCHOSIS, MANIC TYPE	4	2	2	4	2	2	0	0	0	0	0	0
298	DEPRESSIVE TYPE NONORGANIC PSYCHOSES	223	66	157	215	64	151	7	2	5	1	0	1
300-316	NEUROSES, PERSONALITY DISORDERS, AND OTHER NONPSYCHOTIC DISORDERS	203	109	94	195	103	92	7	5	2	1	1	0
300	ANXIETY STATES	1	1	0	1	1	0	0	0	0	0	0	0
303	ALCOHOL DEPENDENCE SYNDROME	85	67	18	78	61	17	6	5	1	1	1	0
304	MORPHINE TYPE DRUG DEPENDENCE	8	7	1	8	7	1	0	0	0	0	0	0
305	ALCOHOL NONDEPENDENT ABUSE OF DRUGS	17	12	5	17	12	5	0	0	0	0	0	0
308	PREDOMINANT DISTURBANCE OF EMOTIONS	1	0	1	1	0	1	0	0	0	0	0	0
310	FRONTAL LOBE SYNDROME	81	18	63	80	18	62	1	0	1	0	0	0
311	DEPRESSIVE DISORDER NEC	10	4	6	10	4	6	0	0	0	0	0	0
317-319	MENTAL RETARDATION	7	1	6	6	1	5	1	0	1	0	0	0
318	MODERATE MENTAL RETARDATION	1	0	1	1	0	1	0	0	0	0	0	0
319	UNSPECIFIED MENTAL RETARDATION	6	1	5	5	1	4	1	0	1	0	0	0
*320-329	VI. DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS	1255	543	712	1217	525	692	32	14	18	6	4	2
320-326	INFLAMMATORY DISEASES OF THE CENTRAL NERVOUS SYSTEM	28	13	15	25	13	12	3	0	3	0	0	0
320	HAEMOPHILUS MENINGITIS	8	3	5	8	3	5	0	0	0	0	0	0
322	NONPYOGENIC MENINGITIS	13	7	6	12	7	5	1	0	1	0	0	0
323	OTHER ENCEPHALITIS DUE TO INFECTION	3	1	2	2	1	1	1	0	1	0	0	0
324	INTERCRANIAL ABSCESS	4	2	2	3	2	1	1	0	1	0	0	0
330-337	HEREDITARY AND DEGENERATIVE DISEASES OF THE NERVOUS SYSTEM	922	384	538	901	375	526	17	7	10	4	2	2
330	LEUCODYSTROPHY	3	2	1	3	2	1	0	0	0	0	0	0
331	ALZHEIMERS DISEASE	545	189	356	529	183	346	15	6	9	1	0	1
332	PARALYSIS AGITANS	236	128	108	233	125	108	1	1	0	2	2	0
333	OTH DEGEN DISEASES OF THE BASAL GANGLIA	16	8	8	16	8	8	0	0	0	0	0	0
334	FRIEDREICH'S ATAXIA	12	5	7	11	5	6	0	0	0	1	0	1
335	HERONIG-HOFFMANN DISEASE	106	51	55	106	51	55	0	0	0	0	0	0
336	SYRINGOMYELIA AND SYRINGOBULBIA	4	1	3	3	1	2	1	0	1	0	0	0
340-349	OTHER DISORDERS OF THE CENTRAL NERVOUS SYSTEM	243	117	126	231	109	122	10	6	4	2	2	0
340	MULTIPLE SCLEROSIS	56	20	36	53	18	35	2	1	1	1	1	0
341	NEURONITIS OPTICA	4	2	2	4	2	2	0	0	0	0	0	0
342	FLACIO HEMIPLEGIA	8	4	4	8	4	4	0	0	0	0	0	0
343	DIPLEGIC	11	8	3	11	8	3	0	0	0	0	0	0
344	QUADRIPLEGIA	19	9	10	18	8	10	1	1	0	0	0	0
345	GENERALIZED NONCONVULSIVE EPILEPSY	28	13	15	26	12	14	2	1	1	0	0	0
348	CEREBRAL CYSTS	112	57	55	106	53	53	5	3	2	1	1	0
349	REACTION TO SPINAL OR LUMBAR PUNCTURE	5	4	1	5	4	1	0	0	0	0	0	0
350-359	DISORDERS OF PERIPHERAL NERVOUS SYSTEM	61	28	33	59	27	32	2	1	1	0	0	0

TABLE C-15

1991

ICD, LIST NUMBER	CAUSE OF DEATH VI. DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS (CONTINUED)	T O T A L S			W H I T E			B L A C K			O T H E R		
		TOT	MALE	FEM	TOT	MALE	FEM	TOT	MALE	FEM	TOT	MALE	FEM
350	OTHER TRIGEMINAL NEURALGIA	1	0	1	1	0	1	0	0	0	0	0	0
352	DISORDERS OF OLFACTORY 1ST NERVE	1	1	0	1	1	0	0	0	0	0	0	0
355	LESION OF SCIATIC NERVE	2	0	2	2	0	2	0	0	0	0	0	0
356	HEREDITARY PERIPHERAL NEUROPATHY	15	6	9	14	5	9	1	1	0	0	0	0
357	ACUTE INFECTIVE POLYNEURITIS	2	1	1	2	1	1	0	0	0	0	0	0
358	MYASTHENIA GRAVIS	17	6	11	17	6	11	0	0	0	0	0	0
359	CONGENITAL HEREDITARY MUSCULAR DYSTROPHY	23	14	9	22	14	8	1	0	1	0	0	0
380-389	DISEASES OF THE EAR AND MASTOID PROCESS	1	1	0	1	1	0	0	0	0	0	0	0
386	MENIERE'S DISEASE	1	1	0	1	1	0	0	0	0	0	0	0
*390-459	VII. DISEASES OF THE CIRCULATORY SYSTEM	21704	9804	11900	21057	9488	11569	558	261	297	88	54	34
390-392	ACUTE RHEUMATIC FEVER	3	2	1	3	2	1	0	0	0	0	0	0
390	RHEUM FEVER W/O MENT OF HEART INVOLVEMENT	1	1	0	1	1	0	0	0	0	0	0	0
391	ACUTE RHEUMATIC PERICARDITIS	2	1	1	2	1	1	0	0	0	0	0	0
393-398	CHRONIC RHEUMATIC HEART DISEASE	179	42	137	173	38	135	5	3	2	1	1	0
394	MITRAL STENOSIS	80	14	66	78	14	64	2	0	2	0	0	0
395	RHEUMATIC AORTIC STENOSIS	3	0	3	3	0	3	0	0	0	0	0	0
396	DISEASES OF MITRAL AND AORTIC VALVES	19	6	13	18	5	13	1	1	0	0	0	0
397	DISEASES OF TRICUSPID VALVE	13	9	4	11	7	4	1	1	0	1	1	0
398	RHEUMATIC MYOCARDITIS	64	13	51	63	12	51	1	1	0	0	0	0
401-405	HYPERTENSIVE DISEASE	507	194	313	478	183	295	26	10	16	3	1	2
401	ESSENTIAL HYPERTENSION, MALIGNANT	101	36	65	97	36	61	4	0	4	0	0	0
402	HYPERTENSIVE HEART DISEASE, MALIGNANT	297	108	189	281	101	180	14	6	8	2	1	1
403	HYPERTENSIVE RENAL DISEASE, MALIGNANT	83	37	46	76	34	42	6	3	3	1	0	1
404	HYPER HEART AND RENAL, MALIGNANT	26	13	13	24	12	12	2	1	1	0	0	0
410-414	ISCHEMIC HEART DISEASE	11466	5605	5861	11179	5461	5718	238	115	123	48	23	20
410	ACUTE MYOCARDIAL INFARCTION	5338	2680	2658	5177	2596	2581	126	61	65	34	22	12
411	OTH ACUTE & SUBACUTE FORMS OF ISCH HT DX	12	7	5	11	7	4	1	0	1	0	0	0
412	OLD MYOCARDIAL INFARCTION	14	9	5	14	9	5	0	0	0	0	0	0
413	ANGINA PECTORIS	36	14	22	34	13	21	2	1	1	0	0	0
414	CORONARY ATHEROSCLEROSIS	6066	2895	3171	5943	2836	3107	109	53	56	14	6	8
415-417	DISEASES OF PULMONARY CIRCULATION	241	90	151	225	83	142	16	7	9	0	0	0
415	ACUTE COR PULMONALE	180	72	108	167	65	102	13	7	6	0	0	0
416	PRIMARY PULMONARY HYPERTENSION	60	18	42	57	18	39	3	0	3	0	0	0
417	ARTERIOVENOUS FISTULA OF PULMONARY VESS	1	0	1	1	0	1	0	0	0	0	0	0
420-429	OTHER FORMS OF HEART DISEASE	4886	2183	2703	4724	2092	2632	144	76	68	18	15	3
420	PERICARDITIS IN DX CLASSIFIED ELSEWHERE	1	1	0	1	1	0	0	0	0	0	0	0
421	ACUTE & SUBACUTE BACTERIAL ENDOCARDITIS	16	7	9	15	7	8	1	0	1	0	0	0
422	ACUTE MYOCARDITIS IN OTHER DISEASES	3	2	1	1	1	0	2	1	1	0	0	0
423	HAENOPERICARDIUM	12	8	4	11	7	4	1	1	0	0	0	0
424	MITRAL VALVE DISORDERS	443	170	273	431	162	269	12	8	4	0	0	0
425	ENDOMYOCARDIAL FIBROSIS	464	303	161	437	286	151	24	15	9	3	2	1
426	ATRIOVENTRICULAR BLOCK COMPLETE	35	19	16	34	18	16	1	1	0	0	0	0
427	PAROXYSMAL SUPRAVENTRICULAR TACHYCARDIA	1449	658	791	1410	636	774	33	17	16	6	5	1
428	CONGESTIVE HEART FAILURE	1335	455	880	1302	442	860	28	9	19	5	4	1
429	MYOCARDITIS UNSPECIFIED	1128	560	568	1082	532	550	42	24	18	4	4	0
430-438	CEREBROVASCULAR DISEASE	3269	1140	2129	3152	1095	2057	103	39	64	14	6	8

TABLE C-15 (CONTINUED)

1991

ICD. LIST NUMBER	CAUSE OF DEATH VII. DISEASES OF THE CIRCULATORY SYSTEM (CONTINUED)	***** T O T A L S *****				***** W H I T E *****				***** B L A C K *****				***** O T H E R *****			
		T O T		F E M		T O T		F E M		T O T		F E M		T O T		F E M	
		MALE	FEM	MALE	FEM	MALE	FEM	MALE	FEM	MALE	FEM	MALE	FEM	MALE	FEM		
430	SUDARACHOID HEMORRHAGE	156	45	111		142	43	99		11	2	9		3	0	3	
431	INTRACEREBRAL HAEMORRHAGE	373	144	229		357	136	221		13	6	7		3	2	1	
432	NONTRAUMATIC EXTRADURAL HAEMORRHAGE	92	41	51		82	38	44		9	3	6		1	0	1	
433	BASILAR ARTERY	21	13	8		21	13	8		0	0	0		0	0	0	
434	CEREBRAL THROMBOSIS	521	167	354		509	159	350		11	7	4		1	1	0	
435	TRANSIENT CEREBRAL ISCHAEMIA	6	4	2		6	4	2		0	0	0		0	0	0	
436	ACUTE BUT ILL-DEF CEREBROVASCULAR DX	1584	538	1046		1532	519	1013		47	16	31		5	3	2	
437	CEREBRAL ATHEROSCLEROSIS	284	102	182		279	100	179		4	2	2		1	0	1	
438	LATE EFFECTS OF CEREBROVASCULAR DISEASE	232	86	146		224	83	141		8	3	5		0	0	0	
440-448	DISEASES OF ARTERIES, ARTERIOLES, AND CAPILLARIES	1053	502	551		1027	490	537		22	9	13		4	3	1	
440	OF AORTA	387	131	256		383	129	254		3	2	1		1	0	1	
441	DISSECTING ANEURYSM	432	253	179		419	246	173		11	5	6		2	2	0	
442	OF ARTERY OF UPPER EXTREMITY	15	7	8		15	7	8		0	0	0		0	0	0	
443	RAYNAUD'S SYNDROME	144	72	72		137	69	68		6	2	4		1	1	0	
444	OF ABDOMINAL AORTA	27	13	14		27	13	14		0	0	0		0	0	0	
446	POLYARTERITIS NODOSA	17	9	8		15	9	6		2	0	2		0	0	0	
447	ARTERIOVENOUS FISTULA ACQUIRED	31	17	14		31	17	14		0	0	0		0	0	0	
451-459	DISEASES OF VEINS AND LYMPHATICS, AND OTHER DIS. OF CIRCULATORY SYS.	100	46	54		96	44	52		4	2	2		0	0	0	
451	SUPERFICIAL VESSELS OF LOWER EXTREMITIES	19	8	11		17	8	9		2	0	2		0	0	0	
453	BUDD-CHIARI SYNDROME	14	7	7		13	6	7		1	1	0		0	0	0	
454	VARICOSE VEINS WITH ULCER	4	2	2		4	2	2		0	0	0		0	0	0	
456	ESOPHAGEAL VARICIS WITH BLEEDING	6	5	1		5	4	1		1	1	0		0	0	0	
457	POSTNASTECTOMY LYMPHOEDEMA SYNDROME	1	0	1		1	0	1		0	0	0		0	0	0	
458	ORTHOSTATIC HYPOTENSION	28	13	15		28	13	15		0	0	0		0	0	0	
459	HAEMORRHAGE UNSPECIFIED	28	11	17		28	11	17		0	0	0		0	0	0	
*460-519	VIII. DISEASES OF THE RESPIRATORY SYSTEM	5189	2457	2731		5044	2371	2673		125	73	52		18	12	6	
460-466	ACUTE RESPIRATORY INFECTIONS	18	5	13		17	5	12		1	0	1		0	0	0	
464	ACUTE LARYNGITIS	1	1	0		1	1	0		0	0	0		0	0	0	
465	ACUTE LARYNGOPHARYNGITIS	2	1	1		2	1	1		0	0	0		0	0	0	
466	ACUTE BRONCHITIS	15	3	12		14	3	11		1	0	1		0	0	0	
470-478	OTHER DISEASES UPPER RESPIRATORY TRACT	9	7	2		9	7	2		0	0	0		0	0	0	
473	MAXILLARY	2	1	1		2	1	1		0	0	0		0	0	0	
478	HYPERTROPHY OF NASAL TURBINATES	7	6	1		7	6	1		0	0	0		0	0	0	
480-487	PNEUMONIA AND INFLUENZA	2388	1026	1362		2318	986	1332		61	35	26		9	5	4	
480	PNEUMONIA DUE TO ADENOVIRUS	5	3	2		5	3	2		0	0	0		0	0	0	
481	PNEUMOCOCCAL PNEUMONIA	58	27	31		54	26	28		4	1	3		0	0	0	
482	PNEUMONIA DUE TO KLEBSIELLA PNEUMONIAE	65	30	35		61	27	34		4	3	1		0	0	0	
483	PNEUMONIA DUE TO OTHER SPECIFIED ORGANISM	2	1	1		2	1	1		0	0	0		0	0	0	
485	BRONCHOPNEUMONIA ORGANISM UNSPECIFIED	146	55	91		140	50	90		6	5	1		0	0	0	
486	PNEUMONIA ORGANISM UNSPECIFIED	2090	907	1183		2034	879	1158		47	26	21		9	5	4	
487	INFLUENZA WITH PNEUMONIA	22	3	19		22	3	19		0	0	0		0	0	0	
490-496	CHRONIC OBSTRUCTIVE PULMONARY DISEASE AND ALLIED CONDITIONS	2093	1100	993		2056	1074	982		30	20	10		7	6	1	
490	BRONCHITIS NOT SPEC AS ACUTE OR CHRONIC	19	7	12		19	7	12		0	0	0		0	0	0	

TABLE C-15

1991

ICD. LIST NUMBER	CAUSE OF DEATH VIII. DISEASES OF THE RESPIRATORY SYSTEM (CONTINUED)	T O T A L S			W H I T E			B L A C K			O T H E R		
		TOT	MALE	FEM	TOT	MALE	FEM	TOT	MALE	FEM	TOT	MALE	FEM
491	SIMPLE CHRONIC BRONCHITIS	59	35	24	59	35	24	0	0	0	0	0	0
492	EMPHYSEMA	405	239	166	400	234	166	4	4	4	1	1	0
493	EXTRINSIC ASTHMA	124	42	82	114	36	78	8	4	4	2	2	0
494	BRONCHIECTASIS	18	8	10	17	8	9	1	0	1	0	0	0
496	CHRONIC AIRWAYS OBSTRUCTION NEC	1468	769	699	1447	754	693	17	12	5	4	3	1
500-508	PNEUMONIOSES AND OTHER LUNG DISEASES DUE TO EXTERNAL AGENTS	258	120	138	249	114	135	7	4	3	1	1	0
500	COALWORKERS' PNEUMOCONIOSIS	1	1	0	1	1	0	0	0	0	0	0	0
501	ASBESTOSIS	6	4	2	6	4	2	0	0	0	0	0	0
502	PNEUMOCONIOSIS DUE TO OTH SILICA,SILICAT	1	1	0	1	1	0	0	0	0	0	0	0
503	PNEUMOCONIOSIS DUE TO INHAL FOOD OR VOMIT	1	0	1	1	0	1	0	0	0	0	0	0
507	PNEUMONITIS DUE TO INHAL FOOD OR VOMIT	248	114	134	239	108	131	7	4	3	1	1	0
508	ACUTE PULMONARY MANIFEST DUE TO RADIATIO	1	0	1	1	0	1	0	0	0	0	0	0
510-519	OTHER DISEASES OF RESPIRATORY SYSTEM	422	199	223	395	185	210	26	14	12	1	0	1
510	EMPHYEMA WITH FISTULA	11	6	5	9	5	4	2	1	1	0	0	0
511	PLEURISY WITHOUT MENT EFFUSION OR CUR TB	31	11	20	28	9	19	2	2	0	1	0	1
512	PNEUMOTHORAX	9	6	3	8	6	2	1	0	1	0	0	0
513	ABSCESS OF LUNG	10	5	5	8	4	4	2	1	1	0	0	0
514	PULMONARY CONGESTION AND HYPOSTASIS	29	13	16	25	11	14	4	2	2	0	0	0
515	POSTINFLAMMATORY PULMONARY FIBROSIS	118	62	56	113	59	54	5	3	2	0	0	0
516	PULMONARY ALVEOLAR PROTEINOSIS	24	11	13	23	10	13	1	1	0	0	0	0
518	PULMONARY COLLAPSE-DISEASES OF LUNG	174	77	97	165	73	92	9	4	5	0	0	0
519	TRACHEOSTOMY MALFUNCTION	16	8	8	16	8	8	0	0	0	0	0	0
*520 579	IX. DISEASES OF THE DIGESTIVE SYSTEM	2022	993	1029	1941	948	993	67	33	34	14	12	2
520-529	DISEASES OF ORAL CAVITY, SALIVARY GLANDS AND JAWS	2	1	1	2	1	1	0	0	0	0	0	0
527	ATROPHY-DISEASES OF SALIVARY GLANDS	1	1	0	1	1	0	0	0	0	0	0	0
528	STOMATITIS,DISEASES ORAL SOFT TISSUES	1	0	1	1	0	1	0	0	0	0	0	0
530-537	DISEASES OF ESOPHAGUS, STOMACH, AND DUODENUM	193	85	108	189	82	107	4	3	1	0	0	0
530	ACHALASIA AND CARDIOSPASM DIS OESOPHAGUS	44	24	20	43	23	20	1	1	0	0	0	0
531	ACUTE GASTRIC ULCER WITH HEMORRHAGE	26	11	15	25	10	15	1	1	0	0	0	0
532	ACUTE DUO ULCER WITH HEMORRHAGE	50	23	22	49	27	22	1	1	0	0	0	0
533	ACUTE PEPTIC ULCER WITH HEMORRHAGE	39	11	28	39	11	28	0	0	0	0	0	0
534	ACUTE GASTROJEJUNAL ULCER W HEM	3	1	2	3	1	2	0	0	0	0	0	0
535	ACUTE GASTRITIS	16	5	11	16	5	11	0	0	0	0	0	0
536	ACHLORHORIA	3	1	2	3	1	2	0	0	0	0	0	0
537	ADULT HYPERTROPHIC PYLORIC STENOSIS	12	4	8	11	4	7	1	0	1	0	0	0
540-543	APPENDICITIS	7	5	2	7	5	2	0	0	0	0	0	0
540	APPENDICITIS WITH GEN PERITONITIS	4	3	1	4	3	1	0	0	0	0	0	0
541	APPENDICITIS,UNQUALIFIED	2	1	1	2	1	1	0	0	0	0	0	0
543	OTHER DISEASES OF APPENDIX	1	1	0	1	1	0	0	0	0	0	0	0
550-553	HERNIA OF ABDOMINAL CAVITY	40	11	29	40	11	29	0	0	0	0	0	0
550	INGUINAL HERNIA,WITH GANGRENE	6	2	4	6	2	4	0	0	0	0	0	0
551	FEMORAL,WITH GANGRENE	5	1	4	5	1	4	0	0	0	0	0	0
552	FEMORAL,WITH OBSTRUCTION	16	6	10	16	6	10	0	0	0	0	0	0

TABLE C-15 (CONTINUED)

1991

ICD, LIST NUMBER	CAUSE OF DEATH IX. DISEASES OF THE DIGESTIVE SYSTEM (CONTINUED)	T O T A L S			W H I T E			B L A C K			O T H E R		
		TOT	MALE	FEM	TOT	MALE	FEM	TOT	MALE	FEM	TOT	MALE	FEM
553	FEMORAL WHOIT MEN OF GANG OR OBSTRUCTION	13	2	11	13	2	11	0	0	0	0	0	0
555-558	NONINFECTIVE ENTERITIS AND COLITIS	240	93	147	234	91	143	5	1	4	1	1	0
555	REGIONAL ENTERITIS,SMALL INTESTINE	15	6	9	15	6	9	0	0	0	0	0	0
556	IDIOPATHIC PROCTOCOLITIS	11	4	7	11	4	7	0	0	0	0	0	0
557	ACUTE VASCULAR INSUFFICIENCY OF INTESTIN	183	69	114	178	68	110	4	0	4	1	1	0
558	OTH NONINFECTIVE GASTROENTERITIS,COLITIS	31	14	17	30	13	17	1	1	0	0	0	0
560-569	OTHER DISEASES OF INTESTINE AND PERITONEUM	320	104	216	312	101	211	7	2	5	1	1	0
560	INTUSSUSCEPTION	139	44	95	137	44	93	2	0	2	0	0	0
562	OVERTICULA SMALL INTESTINE	85	22	63	85	22	63	0	0	0	0	0	0
564	CONSTIPATION	12	4	8	11	3	8	0	0	0	1	1	0
565	ANAL FISSURE	2	0	2	2	0	2	0	0	0	0	0	0
567	PERITONITIS INFECTIOUS DIS CLASSIFIED EL	41	14	27	40	14	26	1	0	1	0	0	0
568	PERITONEAL ADHESIONS	3	2	1	3	2	1	0	0	0	0	0	0
569	ANAL AND RECTAL POLYP	38	18	20	34	16	18	4	2	2	0	0	0
570-579	OTHER DISEASES OF DIGESTIVE SYSTEM	1220	694	526	1157	657	500	51	27	24	12	10	2
570	ACUTE, SUBACUTE NECROSIS OF LIVER	7	2	5	6	2	4	0	0	0	1	0	1
571	ALCOHOLIC FATTY LIVER	604	308	216	575	369	206	21	12	9	8	7	1
572	ABSCCESS OF LIVER	158	96	62	145	83	57	12	7	5	1	1	0
573	CHRONIC PASSIVE CONGESTION OF LIVER	37	26	11	36	25	11	1	1	0	0	0	0
574	CALCULUS GALLBLADDER WH ACUTE CHOLECYSTI	37	16	21	35	15	20	2	1	1	0	0	0
575	ACUTE CHOLECYSTITIS	42	16	26	42	16	26	0	0	0	0	0	0
576	POSTCHOLECYSTECTOMY SYNDROME	35	17	18	34	17	17	1	0	1	0	0	0
577	ACUTE PANCREATITIS	60	39	21	55	35	20	5	4	1	0	0	0
578	HAEMATEMESIS	237	94	143	226	90	136	9	2	7	2	2	0
579	COELIAC DISEASE	3	0	3	3	0	3	0	0	0	0	0	0
580-629	X. DISEASES OF THE GENITOURINARY SYSTEM	1115	462	653	1039	417	622	64	36	28	12	9	3
580-589	NEPHRITIS AND NEPHROSIS	667	320	347	617	292	325	41	22	19	9	6	3
580	WH LESION OF PROLIFERATIVE GLOMERULONEPH	3	0	3	3	0	3	0	0	0	0	0	0
581	WH LESION OF PROLIFERATIVE GLOMERULONEPH	8	3	5	8	3	5	0	0	0	0	0	0
582	WH LESION OF PROLIFERATIVE GLOMERULONEPH	27	14	13	26	13	13	1	1	0	0	0	0
583	WH LESION OF PROLIFERATIVE GLOMERULONEPH	6	2	4	6	2	4	0	0	0	0	0	0
584	WH LESION OF TUBULAR NECROSIS	94	44	50	86	39	47	7	4	3	1	1	0
585	CHRONIC RENAL FAILURE	173	82	91	157	71	86	15	10	5	1	1	0
586	RENAL FAILURE,UNSPECIFIED	356	175	181	331	164	167	18	7	11	7	4	3
590-599	OTHER DISEASES OF URINARY SYSTEM	425	132	293	399	115	284	23	14	9	3	3	0
590	CHRONIC PYELONEPHRITIS & CHRONIC PYONEPH	24	7	17	23	6	17	1	1	0	0	0	0
591	HYDRONEPHROSIS	5	0	5	5	0	5	0	0	0	0	0	0
592	CALCULUS OF KIDNEY	7	0	7	7	0	7	0	0	0	0	0	0
593	NEPHROPTOSIS	68	38	30	54	26	28	11	9	2	3	3	0
595	ACUTE CYSTITIS	3	0	3	3	0	3	0	0	0	0	0	0
596	BLADDER-NECK OBSTRUCTION	6	4	2	6	4	2	0	0	0	0	0	0
598	INFECTIVE URETHRAL STRICTURE	2	2	0	2	2	0	0	0	0	0	0	0
599	URINARY TRACT INFECTION,SITE NOT SPEC	310	81	229	299	77	222	11	4	7	0	0	0
600-608	DISEASES OF MALE GENITAL ORGANS	10	10	0	10	10	0	0	0	0	0	0	0
600	HYPERTPLASIA OF PROSTATE	8	8	0	8	8	0	0	0	0	0	0	0

TABLE C-15

1991

ICD. LIST NUMBER	CAUSE OF DEATH X. DISEASES OF THE GENITOURINARY SYSTEM (CONTINUED)	T O T A L S			W H I T E			B L A C K			O T H E R		
		TOT	MALE	FEM	TOT	MALE	FEM	TOT	MALE	FEM	TOT	MALE	FEM
601	ACUTE PROSTATITIS	1	1	0	1	1	0	0	0	0	0	0	0
608	SEMINAL VESICULITIS	1	1	0	1	1	0	0	0	0	0	0	0
610-611	DISORDERS OF BREAST	4	0	4	4	0	4	0	0	0	0	0	0
611	INFLAMMATORY DISEASE OF BREAST	4	0	4	4	0	4	0	0	0	0	0	0
614-616	INFLAMMATORY DISEASE OF FEMALE PELVIC ORGANS	5	0	5	5	0	5	0	0	0	0	0	0
614	ACUTE SALPINGITIS AND OOPHORITIS	4	0	4	4	0	4	0	0	0	0	0	0
615	ACUTE INFLAM DX UTERUS EXCEPT CERVIX	1	0	1	1	0	1	0	0	0	0	0	0
617-629	OTHER DISORDERS OF FEMALE GENITAL TRACT	4	0	4	4	0	4	0	0	0	0	0	0
619	URINARY-GENITAL TRACT FISTULAE FEMALE	1	0	1	1	0	1	0	0	0	0	0	0
620	FOLLICULAR CYST OF OVARY	1	0	1	1	0	1	0	0	0	0	0	0
621	POLYP OF CORPUS UTERI	1	0	1	1	0	1	0	0	0	0	0	0
623	DYSPLASIA OF VAGINA	1	0	1	1	0	1	0	0	0	0	0	0
*630 676	XI. COMPLICATIONS OF PREGNANCY, CHILDBIRTH, AND PUERPERIUM	2	0	2	2	0	2	0	0	0	0	0	0
640-648	COMPLICATIONS MAINLY RELATED TO PREGNANCY	1	0	1	1	0	1	0	0	0	0	0	0
646	PAPYRACEOUS FETUS	1	0	1	1	0	1	0	0	0	0	0	0
670-676	COMPLICATIONS OF THE PUERPERIUM	1	0	1	1	0	1	0	0	0	0	0	0
673	OBSTETRICAL AIR EMBOLISM	1	0	1	1	0	1	0	0	0	0	0	0
*680 709	XII. DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUE	54	18	36	49	16	33	3	1	2	2	1	1
680-686	INFECTIONS OF SKIN AND SUBCUTANEOUS TISSUE	14	6	8	14	6	8	0	0	0	0	0	0
682	FACE	13	6	7	13	6	7	0	0	0	0	0	0
686	PYODERMA	1	0	1	1	0	1	0	0	0	0	0	0
690-698	OTHER INFLAMMATORY CONDITIONS OF SKIN AND SUBCUTANEOUS TISSUE	8	1	7	6	1	5	1	0	1	1	0	1
694	DERMATITIS HERPETIFORMIS	4	1	3	4	1	3	0	0	0	0	0	0
695	TOXIC ERYTHEMA	4	0	4	2	0	2	1	0	1	1	0	1
700-709	OTHER DISEASES OF SKIN AND SUBCUTANEOUS TISSUE	32	11	21	29	9	20	2	1	1	1	1	0
707	DECUBITUS ULCER	32	11	21	29	9	20	2	1	1	1	1	0

TABLE C-15 (CONTINUED)

1991

ICD. LIST NUMBER	CAUSE OF DEATH	T O T A L S				W H I T E				B L A C K				O T H E R			
		TOT	MALE	FEM		TOT	MALE	FEM		TOT	MALE	FEM		TOT	MALE	FEM	
*710	739 XII. DISEASES OF THE MUSCULOSKELETAL	139	34	105		131	33	98		6	1	5		2	0	2	
	SYSTEM AND CONNECTIVE TISSUE																
710-719	ARTHRITIS AND RELATED DISORDERS	79	10	69		75	10	65		2	0	2		2	0	2	
710	SYSTEMIC LUPUS ERYTHEMATOSUS	49	4	45		46	4	42		2	0	2		1	0	1	
711	PSYGENIC ARTHRITIS	3	2	1		3	2	1		0	0	0		0	0	0	
714	RHEUMATOID ARTHRITIS	18	3	15		18	3	15		0	0	0		0	0	0	
715	GENERAL OSTEOARTHRITIS & ALLIED DISORD	5	1	4		4	1	3		0	0	0		1	0	1	
716	KASCHIN-BECK DISEASE	3	0	3		3	0	3		0	0	0		0	0	0	
718	ARTICULAR CARTILAGE DISORDER	1	0	1		1	0	1		0	0	0		0	0	0	
720-724	DORSOPATHIES	5	2	3		4	2	2		1	0	1		0	0	0	
721	CERVICAL SPONDYLOSIS WH OUT MYELOPATHY	2	1	1		2	1	1		0	0	0		0	0	0	
722	DISPLACE OF CI DISC WH OUT MYELOPATHY	2	1	1		1	1	0		1	0	1		0	0	0	
723	SPINAL STENOSIS IN CERVICAL REGION	1	0	1		1	0	1		0	0	0		0	0	0	
725-729	RHEUMATISM, EXCLUDING THE BACK	12	4	8		12	4	8		0	0	0		0	0	0	
725	POLYMYALGIA RHEUMATICA	2	0	2		2	0	2		0	0	0		0	0	0	
728	INFECTIVE MYOSITIS	6	2	4		6	2	4		0	0	0		0	0	0	
729	RHEUMATISM, UNSPECIFIED, AND FIBROSITIS	4	2	2		4	2	2		0	0	0		0	0	0	
730-739	OSTEOPATHIES CHONDROPATHIES & ACQUIRED MUSCULOSKELETAL DEFORMITIES	43	18	25		40	17	23		3	1	2		0	0	0	
730	ACUTE OSTEOMYELITIS	19	9	10		16	8	8		3	1	2		0	0	0	
731	OSTEITIS DEFORMIS WHOUT MEN BONE TUMOUR	3	3	0		3	3	0		0	0	0		0	0	0	
733	OSTEOPOROSIS	15	6	9		15	6	9		0	0	0		0	0	0	
737	ADOLESCENT POSTURAL KYPHOSIS	6	0	6		6	0	6		0	0	0		0	0	0	
*740	759 XIV. CONGENITAL ANOMALIES	235	122	113		214	112	102		18	8	10		3	2	1	
740	ANENCEPHALUS	10	2	8		8	2	6		2	0	2		0	0	0	
741	SPINA BIFIDA WITH HYDROCEPHALUS	4	3	1		4	3	1		0	0	0		0	0	0	
742	ENCEPHALOCELE	26	16	10		23	14	9		3	2	1		0	0	0	
745	CORDION TRUNCUS	32	17	15		29	15	14		2	1	1		1	1	0	
746	ANOMALIES OF PULMONARY VALVE	51	31	20		46	28	18		4	2	2		1	1	0	
747	PATENT DUCTS ARTERIOSUS	19	8	11		18	8	10		1	0	1		0	0	0	
748	CHOANAL ATRESIA	21	9	12		18	7	11		3	2	1		0	0	0	
749	CLEFT PALATE	1	1	0		1	1	0		0	0	0		0	0	0	
750	TONGUE TIE	2	1	1		2	1	1		0	0	0		0	0	0	
751	MECKEL'S DIVERTICULUM	1	1	0		1	1	0		0	0	0		0	0	0	
753	CONG ANOMAL RENAL AGENESIES & DYSGENESIS	13	10	3		13	10	3		0	0	0		0	0	0	
754	CONG MUSC DEFORMITIES OF SKULL, FACE, JAW	1	1	0		1	1	0		0	0	0		0	0	0	
756	ANOMALIES OF SKULL AND FACE BONE	9	4	5		7	3	4		2	1	1		0	0	0	
758	DOWN'S SYNDROME	25	9	16		23	9	14		1	0	1		1	0	1	
759	ANOMALIES OF SPLEEN	20	9	11		20	9	11		0	0	0		0	0	0	

1991

ICD, LIST NUMBER	CAUSE OF DEATH XVII. EXTERNAL CAUSES OF INJURY AND POISONING (CONTINUED)	***** T O T A L S *****				***** W H I T E *****				***** B L A C K *****				***** O T H E R *****			
		T O T		F E M		T O T		F E M		T O T		F E M		T O T		F E M	
		M A L E	F E M	M A L E	F E M	M A L E	F E M	M A L E	F E M	M A L E	F E M	M A L E	F E M	M A L E	F E M		
822	O/MTR/VEH-NO-HWY-MOV/OBJ - DR/O/TN/MTRCYC	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0
823	O/MTR/VEH-NO-HWY-FIX/OBJ - DRIVER	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0
825	NON HWY OTHER/UNSPEC. DRIVER	3	3	0	0	3	3	0	0	0	0	0	0	0	0	0	0
826-829	OTHER ROAD VEHICLE ACCIDENTS	10	8	2	2	9	8	1	1	0	0	0	0	1	0	0	1
826	PEDAL CYC-ACCIDENT - PEDESTRIAN	9	7	2	2	8	7	1	1	0	0	0	0	1	0	1	1
828	ACDNT/INVOL/ANIM/RODE - PEDESTRIAN	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0
830-838	WATER TRANSPORT ACCIDENTS	8	8	0	0	8	8	0	0	0	0	0	0	0	0	0	0
830	WATERCRAFT DROWNING - OCCUPANT	2	2	0	0	2	2	0	0	0	0	0	0	0	0	0	0
832	WATER TRANS DROWNING - OCCUPANT	5	5	0	0	5	5	0	0	0	0	0	0	0	0	0	0
838	OTH/UNSPC MTR/CRF ACDNT - OCC SM/MT UPO	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0
840-845	AIR AND SPACE TRANSPORT ACCIDENTS	24	18	6	6	24	18	6	6	0	0	0	0	0	0	0	0
840	PMR AIR/CFT GO/UP/DWN - OCC SPACE/CFT	7	4	3	3	7	4	3	3	0	0	0	0	0	0	0	0
841	ACDNT PMR A/C O/SPEC - OCC SPACE/CFT	16	13	3	3	16	13	3	3	0	0	0	0	0	0	0	0
844	OTH SPEC A/TRANSP - OCC SPACE/CFT	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0
850-858	ACCIDENTAL POISONING BY DRUGS AND MEDICAMENTS	41	23	18	2	38	20	18	2	3	3	0	0	0	0	0	0
850	ACC POISON OPIATES AND RELATED NARCOTICS	11	7	4	4	11	7	4	4	0	0	0	0	0	0	0	0
853	ACC POISON PHENOTHIAZINE-BASED TRANQUILL	1	0	1	1	1	0	1	1	0	0	0	0	0	0	0	0
854	ACC POISON ANTIDEPRESSANTS	2	2	0	0	2	2	0	0	0	0	0	0	0	0	0	0
855	ANTICONSULSANT & ANTI-PARKINSONISM DRUGS	4	3	1	1	3	2	1	1	1	1	0	0	0	0	0	0
858	ACC POISON HORMONES & SYNTHETIC SUBSTITU	23	11	12	2	21	9	12	2	2	2	0	0	0	0	0	0
860-869	ACCIDENTAL POISONING BY OTHER SUBSTANCES GASES AND VAPOURS	13	11	2	2	12	10	2	2	0	0	0	0	0	0	0	0
860	ALCOHOLIC BEVERAGES ACC POISONING	3	2	1	1	2	1	1	1	0	0	0	0	0	0	0	0
868	ACC POISONING LIQUEFIED PETRO GAS CONTAI	10	9	1	1	10	9	1	1	0	0	0	0	0	0	0	0
870-876	MISADVENTURE TO PATIENTS DURING SURGICAL AND MEDICAL CARE	1	0	1	1	0	0	0	0	1	0	1	0	0	0	0	0
870	ACCIDENTAL CUT SURGICAL OPERATION	1	0	1	1	0	0	0	0	1	0	1	0	0	0	0	0
878-879	SURGICAL & MEDICAL PROCEDURES AS CAUSE OF LATER COMPLICATION	47	24	23	2	44	22	22	2	2	2	0	1	0	1	0	1
878	SURG OPERA WH TRANSPLANT OF WHOLE ORGAN	39	21	18	1	38	20	18	1	1	1	0	0	0	0	0	0
879	CARDIAC CATHETERIZATION	8	3	5	5	6	2	4	1	1	1	0	0	1	0	1	0
880-888	ACCIDENTAL FALLS	326	134	192	3	320	132	188	5	2	3	3	1	0	1	0	1
880	FALL ON OR FROM ESCALATOR	57	25	32	0	57	25	32	0	0	0	0	0	0	0	0	0
881	FALL FROM LADDER	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0
882	FALL FROM OR OUT OF BUILDING OR STRUCT	14	13	1	1	14	13	1	1	0	0	0	0	0	0	0	0
883	ACC DIVING OR JUMPING INTO WATER	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0
884	FALL FROM PLAYGROUND EQUIPMENT	19	10	9	9	19	10	9	9	0	0	0	0	0	0	0	0
885	FALL SAME LEVEL SLIPPING,TRIPPING,STUMBL	13	5	8	8	12	5	7	1	0	1	0	1	0	0	0	0
887	FRACTURE CAUSE UNSPECIFIED	128	39	89	8	126	39	87	1	0	1	0	1	0	1	0	1
888	OTH & UNSPECIFIED FALL	93	40	53	5	90	38	52	3	2	1	0	0	0	0	0	0
890-899	ACCIDENTS CAUSED BY FIRES AND FLAMES	54	35	19	1	48	33	15	6	2	4	0	0	0	0	0	0
890	EXPLOSION CAUSED BY CONFLAGRATION	40	27	13	3	35	25	10	5	2	3	0	0	0	0	0	0
892	CONFLAGRATION NOT IN BLOG OR STRUCTURE	2	2	0	0	2	2	0	0	0	0	0	0	0	0	0	0
893	IGNITION CLOTHING FIRE IN DMELLING	6	3	3	3	5	3	2	1	0	1	0	1	0	0	0	0
894	IGNITION OF HIGHLY INFLAMMABLE MATERIAL	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0
898	ACC CAUSED BY BURNING BEDCLOTHES	2	1	1	1	2	1	1	2	1	1	0	0	0	0	0	0

TABLE C-15

1991

ICD. LIST NUMBER	CAUSE OF DEATH XVII. EXTERNAL CAUSES OF INJURY AND POISONING (CONTINUED)	T O T A L S				W H I T E				B L A C K				O T H E R			
		TOT	MALE	FEM		TOT	MALE	FEM		TOT	MALE	FEM		TOT	MALE	FEM	
B99	ACCIDENT CAUSED BY UNSPECIFIED FIRE	3	1	2		3	1	2		0	0	0		0	0	0	
900-909	ACCIDENTS CAUSED BY NATURAL AND ENVIRONMENTAL FACTORS	8	4	4		7	3	4		1	1	0		0	0	0	
900	EXCESSIVE HEAT DUE TO WEATHER CONDITIONS	1	0	1		1	0	1		0	0	0		0	0	0	
901	EXCESSIVE COLD DUE TO WEATHER CONDITIONS	6	4	2		5	3	2		1	1	0		0	0	0	
904	ABANDONMENT NEGLECT O INFANTS & HELPLESS	1	0	1		1	0	1		0	0	0		0	0	0	
910-915	ACCIDENTS CAUSED BY SUBMERSION SUFFOCATION & FOREIGN BODIES	163	107	61		152	95	57		15	12	3		1	0	1	
910	ACC DROWN & SUBMERSION WHILE WATER SKI	57	50	7		49	43	6		8	7	1		0	0	0	
911	INHALATION, INGESTION OF FOOD	23	13	10		20	11	9		3	2	1		0	0	0	
912	INHALATION, INGESTION OF OTHER OBJECT	64	30	34		62	29	33		1	1	0		1	0	1	
913	MECH. SUFFOC. BED OR CRADLE	22	13	9		19	11	8		3	2	1		0	0	0	
915	FOREIGN BODY ACC ENTERING OTH ORIFICE	2	1	1		2	1	1		0	0	0		0	0	0	
916-928	OTHER ACCIDENTS	69	55	14		67	53	14		0	0	0		2	2	0	
916	STRUCK BY FALLING OBJECT	8	8	0		8	8	0		0	0	0		0	0	0	
917	STRUCK BY OBJECTS OR PERSONS IN SPORTS	2	2	0		2	2	0		0	0	0		0	0	0	
919	ACC CAUSED BY AGRICULTURAL MACHINES	6	6	0		5	5	0		0	0	0		1	1	0	
922	ACC CAUSED BY HAND GUN	6	6	0		6	6	0		0	0	0		0	0	0	
924	ACC CAUSED BY HOT LIQUIDS VAPORS, INC STE	2	2	0		2	2	0		0	0	0		0	0	0	
925	ACC CAUS BY DOMESTIC WIRING & APPLIANCES	13	13	0		13	13	0		0	0	0		0	0	0	
928	PROLONGED STAY IN WEIGHTLESS ENVIRONMENT	32	18	14		31	17	14		0	0	0		1	1	0	
929-929	LATE EFFECTS OF ACCIDENTAL INJURY	14	9	5		12	7	5		2	2	0		0	0	0	
929	LATE EFFECTS OF M/V ACCIDENT	14	9	5		12	7	5		2	2	0		0	0	0	
950-959	SUICIDE AND SELF-INFLICTED INJURY	504	383	121		481	362	119		13	17	1		4	3	1	
950	SUICIDE, ANALGESICS, ANTIPIRETTICS, ANTIRHEU	80	30	50		79	29	50		1	1	0		0	0	0	
952	M/V EXHAUST GAS	48	37	11		46	35	11		1	1	0		1	1	0	
953	SUICIDE, HANGING	144	123	21		136	115	21		7	7	0		0	0	0	
954	SUICIDE, DROWNING	9	4	5		7	3	4		1	1	0		1	0	1	
955	SUICIDE, HAND GUN	166	145	21		159	139	20		7	6	1		0	0	0	
956	SUICIDE, BY CUTTING AND PIERCING INSTRUME	14	10	4		14	10	4		0	0	0		0	0	0	
957	SUICIDE BY JUMPING HIGH PLS, RESID PREMIS	29	23	6		27	21	6		1	1	0		1	1	0	
958	SUIC, JUMP OR LYING BEFORE MOVING OBJECT	14	11	3		13	10	3		0	0	0		1	1	0	
960-969	HOMICIDE AND INJURY PURPOSELY INFLICTED BY OTHER PERSONS	269	210	59		155	113	42		94	82	12		20	15	5	
960	UNARMED FIGHT OR BRAWL	1	1	0		1	1	0		0	0	0		0	0	0	
963	ASSAULT BY HANGING AND STRANGULATION	15	5	10		11	4	7		3	1	2		1	0	1	
964	ASSAULT BY SUBMERSION (DROWNING)	1	0	1		1	0	1		0	0	0		0	0	0	
965	ASSAULT BY HANDGUN	138	122	16		58	48	10		67	62	5		13	12	1	
966	ASSAULT BY CUTTING AND PIERCING INSTRUM	72	52	20		52	37	15		19	15	4		1	0	1	
968	ASSAULT BY FIRE	40	28	12		30	21	9		5	4	1		5	3	2	
969	LATE EFFECT INJY INFLICTED BY OTH PERSON	2	2	0		2	2	0		0	0	0		0	0	0	
970-978	LEGAL INTERVENTION	2	2	0		0	0	0		2	2	0		0	0	0	
970	LEGAL INTERVENTION - FIREARMS	2	2	0		0	0	0		2	2	0		0	0	0	
980-989	INJURY UNDETERMINED WHETHER ACCIDENTALLY OR PURPOSELY INFLICTED	245	180	65		224	166	58		13	11	7		2	2	0	
980	POISONING, ANALGESICS, ANTIPIRE & ANTIRHEU	212	154	58		196	145	51		15	8	7		1	1	0	
982	POISONING, M/V EXHAUST GAS	4	1	3		4	1	3		0	0	0		0	0	0	

TABLE C-15 (CONTINUED)

1991

ICD. LIST NUMBER	CAUSE OF DEATH XVII. EXTERNAL CAUSES OF INJURY AND POISONING (CONTINUED)	T O T A L S			W H I T E			B L A C K			O T H E R		
		TOT	MALE	FEM	TOT	MALE	FEM	TOT	MALE	FEM	TOT	MALE	FEM
		4	2	2	3	1	2	1	1	0	0	0	0
983	HANGING	11	11	0	9	9	0	0	0	0	1	1	0
984	SUBMERSION, DROWNING	2	1	1	1	0	1	1	1	0	0	0	0
987	FALL FR HIGH PLACE, RESIDENTIAL PREMISES	12	11	1	11	10	1	1	1	0	0	0	0
988	JUMPING OR LYING BEFORE MOVING OBJECT												
***	RESIDENT GRAND TOTALS	53010	25460	27550	50814	24230	26584	1887	1038	849	304	187	117
TOTALS INCLUDE 5 OF UNKNOWN RACE: 5 MALES AND 0 FEMALES.													

INFANT & NEONATAL DEATHS

SECTION D

INFANT AND NEONATAL DEATHS

The total number of resident infant deaths (deaths of children less than 1 year of age) decreased by 11.2% in Massachusetts from 649 in 1990 to 576 in 1991. The rate of infant deaths also decreased from 7.0 per 1,000 live births in 1990 to 6.5 in 1991. As with live births and other deaths, all Massachusetts resident infant deaths are included regardless of the state in which they occurred. Neonatal deaths (deaths of infants under 28 days of age) also decreased, from 446 in 1990 to 400 in 1991, a decrease of 10.3%. The rate of neonatal deaths decreased from 4.8 per 1,000 live births in 1990 to 4.5 per 1,000 live births in 1991.

INFANT DEATHS BY RACE

Beginning with the publication of 1989 data, several changes occurred in the method of calculating infant mortality rates (IMRs) by race and ethnicity. **These changes affect only the calculation of race-specific infant mortality rates; all other data presented in this publication are comparable to information from previous years.** These changes are the result of new federal recommendations for analyzing birth information, including infant mortality data, and the implementation of the new Massachusetts Standard Certificate of Death in 1989. Black and white IMRs are presented using both the old and new methods of calculation.

Using mother's race rather than infant's race:

The National Center for Health Statistics (NCHS) has recommended classifying births on the birth certificate according to the self-reported race of the mother. In the past, the race of the infant was assigned by combining information on the races of the mother and the father. However, based on changes in statistical conventions by the National Center for Health Statistics, Massachusetts now follows the new NCHS guidelines and calculates infant mortality using mother's race.

It is important to remember that the total number of infant deaths does not change--nor do the race/ethnic categories into which they are placed. (The death certificate only contains race/ethnic identifiers for the decedent, in this case the infant. It contains no race or ethnicity information about the mother.) Only the race/ethnic category used to classify births changes.

In 1991, the impact of this change is to lower the white infant mortality rate and raise the black infant mortality rate. For example, using infant's race in 1991, the white IMR was 6.1 per 1,000 births; the black IMR was 12.1. Using the same death information, but classifying births according to mother's race, the white IMR declines to 6.0 and the black IMR increases to 13.8. Thus, the gap between the white IMR and the black IMR increases from 98% to 130%, based solely on the change in method of computation.

Change in the Classification of Births Using Infant's Race and Mother's Race: 1991

Race Group	Classified By Infant's Race	Classified By Mother's Race	Percent Change Due To Reclassification
Number of Births			
White	75,565	76,979	+ 1.9
Black	8,416	7,352	- 12.6
Other	3,998	3,570	- 10.7
Unknown	197	275	+ 39.6
TOTAL	88,176	88,176	0.0

A Summary of the Impact of Classification Changes on 1991 IMRs

CHANGE	ADVANTAGES	IMPACT
Using mother's race rather than infant's race to categorize births	<ul style="list-style-type: none"> • Provides consistency with federal guidelines • Discontinues arbitrary combination of parents' race responses to classify infant race 	<ul style="list-style-type: none"> • Reduces comparability with previously published data for past years • Lowers the IMR for whites and raises the IMR for blacks, thus increasing the gap between white and black rates • Reduces comparability with other states and federal data that have not implemented this change

INFANT DEATHS BY AGE

Of all infant deaths, 56.8% (327 infants) died within the first week of life in 1991, compared to 56.2% (365 infants) in 1990. Of these, 40.3% (232 infants) occurred within the first 24 hours of life in 1991, compared to 43.9% (285 infants) in 1990.

INFANT DEATHS BY CAUSE

The leading cause of infant deaths was certain conditions originating in the perinatal period (medical conditions arising from approximately 28 weeks gestation to 28 days of age). These deaths accounted for 51.4% of all infant deaths in 1991, an increase from the 1990 percentage of 49.3%. The second leading cause of infant deaths was congenital anomalies, which accounted for 22.4% of infant deaths. The third leading cause of infant deaths was sudden infant death syndrome (SIDS), which decreased in number from 83 infant deaths in 1990 (12.8% of all infant deaths) to 58 infant deaths in 1991 (10.1% of all infant deaths).

NEONATAL MORTALITY BY BIRTHWEIGHT

The data on neonatal mortality by birthweight are provided from a file linking the birth and death records of infants less than 28 days old who were born to residents of Massachusetts during 1991, regardless of when the death occurred. Thus, deaths occurring in January of the subsequent year are included if the birth occurred in December of the data year. Deaths occurring in January of the data year are not included if the birth occurred in December of the previous year. Denominators are resident births of the data year. In Figure D-3 and Table D-5, Massachusetts uses a file that links the death of each neonate to his/her own birth record. By linking the death record to the statistical portion of the birth record, the reasons for each neonate's death can be examined (e.g., the month that prenatal care began, the total number of prenatal visits, medical risk factors such as smoking and alcohol consumption, etc.). Please keep in mind, however, that the figures presented in Table D-5 cannot be directly compared with other tables in this report.

Neonatal mortality is highly correlated with low birthweight. Low birthweight (babies under 2,500 grams or 5 pounds, 8 ounces) accounted for 5.9% of all babies born in Massachusetts in 1991 and 74.8% of all neonatal deaths. As can be seen in Table D-5, of 102 infants weighing less than 500 grams at birth in 1991, 96 of these babies did not survive. This resulted in a neonatal mortality rate of 941.2 deaths for every 1,000 live births in that weight category. Neonatal mortality rates decrease dramatically as birthweight increases.

DEFINITIONS IMPORTANT FOR THIS SECTION INCLUDE:

INFANT DEATH

Death of a child whose age is less than one year (365 days).

NEONATAL DEATH

Death of a child whose age is less than 28 days.

RATES IMPORTANT FOR THIS SECTION INCLUDE:

INFANT MORTALITY
RATE (IMR)

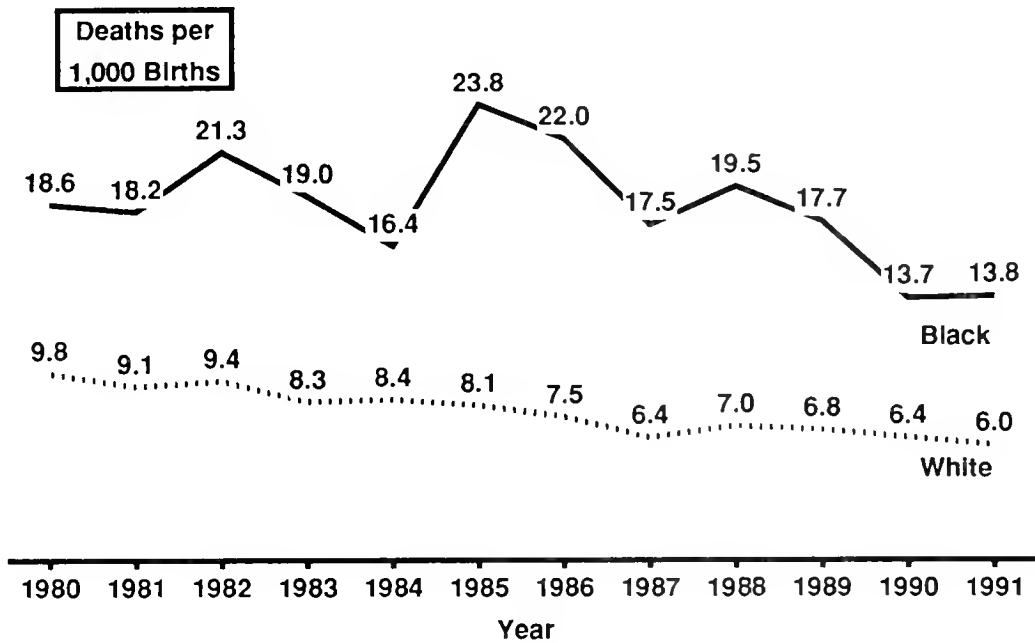
Number of Resident Deaths at Less than 1 Year of Age x 1,000
Total Resident Live Births

NEONATAL MORTALITY
RATE (NMR)

Number of Resident Deaths at Less Than 28 Days of Age x 1,000
Total Resident Live Births

Figure D-1

Infant Mortality Rates by Mother's Race^{1,2}
Massachusetts: 1980-1991



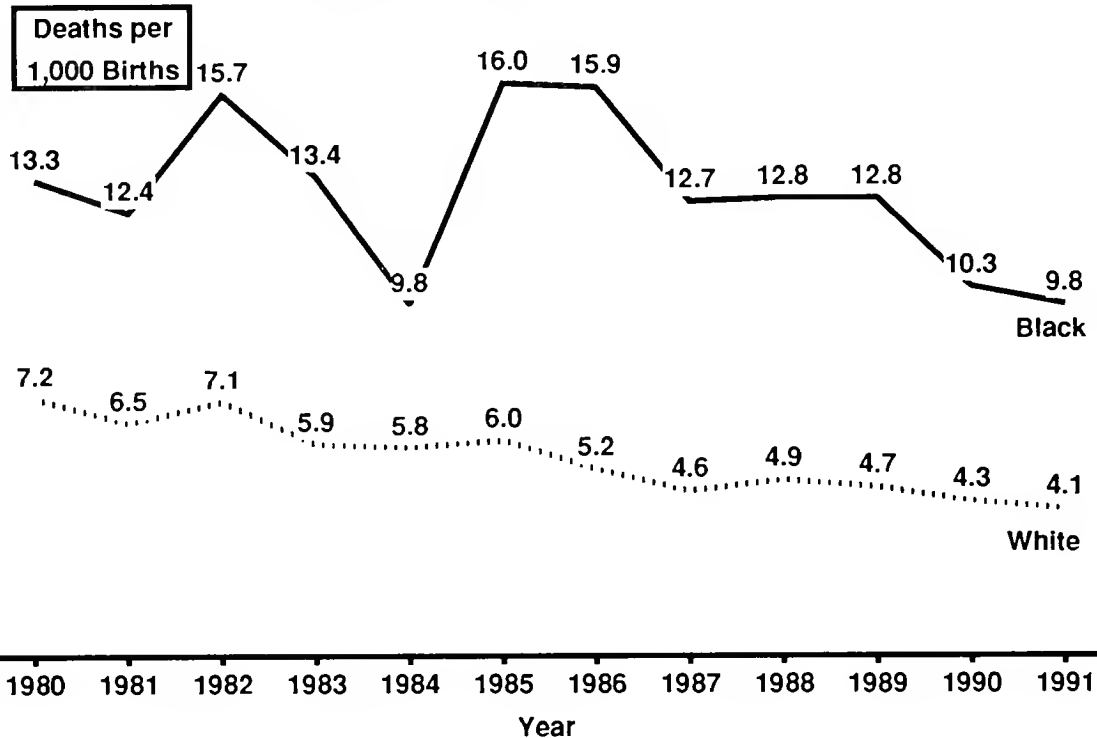
1. Infant: A child less than one year (365 days) old

2. Deaths of infants of unknown race are excluded except for the total calculation.

For rate computations, infants of unknown race are allocated into the race categories according to the distribution of births of known races.

Figure D-2

Neonatal Mortality Rates by Mother's Race^{1,2}
Massachusetts: 1980-1991



1. Neonatal: Infants under 28 days old.

2. Deaths of infants of unknown race are excluded except for the total calculation.

For rate computations, infants of unknown race are allocated into the race categories according to the distribution of births of known races.

TABLE D-1
INFANT AND NEONATAL DEATHS
MASSACHUSETTS AND UNITED STATES RESIDENT DEATHS
1970-1991

Year	Infant Deaths (Deaths Under One Year)			Neonatal Deaths (Deaths Under 28 Days)		
	# of Deaths	Rate Per 1,000 Live Births		# of Deaths	Rate Per 1,000 Live Births	
		MA	U.S. ¹		MA	U.S.
1970	1,583	16.9	20.0	1,231	13.1	15.1
1971	1,462	16.8	19.1	1,130	13.0	14.2
1972	1,164	15.1	18.5	896	11.6	13.6
1973	1,104	15.2	17.7	861	11.9	13.0
1974	976	13.9	16.7	763	10.8	12.3
1975	903	13.2	16.1	678	9.9	11.6
1976	799	12.1	15.2	585	8.9	10.9
1977	806	11.8	14.1	616	9.1	9.9
1978	753	11.0	13.8	552	8.1	9.5
1979	760	10.8	13.1	564	8.0	8.9
1980	748	10.3	12.6	550	7.6	8.5
1981	710	9.6	11.9	510	6.9	8.0
1982	764	10.1	11.5	573	7.6	7.7
1983	882	9.0	11.2	482	6.3	7.3
1984	699	8.9	10.8	472	6.0	7.0
1985	745	9.1	10.6	538	6.6	7.0
1986	695	8.4	10.4	478	5.8	6.7
1987	608	7.2	10.0	432	5.1	6.5
1988	693	7.9	10.0	477	5.4	6.3
1989	697	7.6	9.8	479	5.2	6.3
1990	649	7.0	9.2	446	4.8	5.8
1991	576	6.5	8.9	400	4.5	5.6

¹ Source of U.S. data: "Annual Summary of Births, Marriages, Divorces, and Deaths: United States", Monthly Vital Statistics Report, Provisional Data from the National Center for Health Statistics, U.S. Department of Health and Human Services

TABLE D-2
TRENDS IN INFANT, NEONATAL AND POST NEONATAL MORTALITY¹ BY RACE
MASSACHUSETTS RESIDENT DEATHS
1980-1991

Year	Infant Deaths ²										
	Total ³		White			Black			Other ⁴		
			Rate ⁵			Rate			Rate		
	#	Rate ⁶	#	Old	New	#	Old	New	#	Old	New
1980	748	10.3	655	9.9	9.8	87	16.6	18.6	5	4.0	4.6
1981	710	9.6	616	9.2	9.1	85	16.0	18.2	8	35.3	6.1
1982	764	10.1	656	9.6	9.4	102	19.0	21.3	5	2.9	3.3
1983	682	9.0	579	8.4	8.3	89	16.8	19.0	12	6.6	7.4
1984	699	8.9	601	8.5	8.4	82	14.7	16.4	13	6.6	7.5
1985	745	9.1	608	8.2	8.1	126	21.3	23.8	11	5.3	6.1
1986	695	8.4	560	7.6	7.5	123	19.7	22.0	11	4.0	4.6
1987	608	7.2	486	6.6	6.4	110	15.5	17.5	12	3.9	4.5
1988	693	7.9	546	7.1	7.0	133	17.2	19.5	13	3.4	3.8
1989	697	7.6	549	7.0	6.8	131	15.5	17.7	17	4.3	4.8
1990	649	7.0	519	6.5	6.4	106	12.1	13.7	24	5.8	6.5
1991	576	6.5	460	6.1	6.0	102	12.1	13.8	14	3.5	3.9

Year	Neonatal Deaths ⁷										
	Total		White			Black			Other		
			Rate			Rate			Rate		
	#	Rate	#	Old	New	#	Old	New	#	Old	New
1980	550	7.6	483	7.3	7.2	62	11.9	13.3	5	4.0	4.6
1981	510	6.9	442	6.6	6.5	59	11.1	12.4	5	3.3	3.8
1982	573	7.6	494	7.2	7.1	75	13.9	15.7	3	-- ⁸	--
1983	482	6.3	411	6.0	5.9	63	11.9	13.4	7	3.8	4.3
1984	472	6.0	411	5.8	5.8	49	8.8	9.8	8	4.0	4.6
1985	538	6.6	447	6.0	6.0	85	14.4	16.0	5	2.4	2.8
1986	478	5.8	383	5.2	5.2	89	14.2	15.9	5	1.8	2.1
1987	432	5.1	343	4.6	4.6	80	11.2	12.7	9	2.9	3.4
1988	477	5.4	383	5.0	4.9	87	11.3	12.8	6	1.6	1.8
1989	479	5.2	376	4.8	4.7	95	11.2	12.8	8	2.0	2.3
1990	446	4.8	347	4.4	4.3	80	9.1	10.3	19	4.6	5.1
1991	400	4.5	318	4.2	4.1	72	8.5	9.8	10	2.5	2.8

TABLE D-2 (continued)
TRENDS IN INFANT, NEONATAL AND POST NEONATAL MORTALITY BY RACE
MASSACHUSETTS RESIDENT DEATHS
1980-1991

Year	Post Neonatal Deaths ⁹										
	Total		White			Black			Other		
	#	Rate	#	Rate		#	Rate		#	Rate	
				Old	New		Old	New		Old	New
1980	198	2.7	172	2.6	2.6	25	4.7	5.3	0	--	--
1981	200	2.7	174	2.6	2.6	26	4.9	5.8	3	--	--
1982	191	2.5	162	2.4	2.3	27	5.1	5.6	2	--	--
1983	200	2.7	168	2.4	2.4	26	4.9	5.6	5	2.8	3.1
1984	227	2.9	190	2.7	2.6	33	5.9	6.6	5	2.6	2.9
1985	207	2.5	161	2.2	2.1	41	6.9	7.8	6	2.9	3.3
1986	217	2.6	177	2.4	2.3	34	5.5	6.1	6	2.1	2.5
1987	176	2.1	143	2.0	1.8	30	4.3	4.8	3	--	--
1988	216	2.5	163	2.1	2.1	46	5.9	6.7	7	1.8	2.0
1989	218	2.4	173	2.2	2.1	36	4.3	4.9	9	2.3	2.5
1990	203	2.2	172	2.2	2.1	26	3.0	3.4	5	1.2	1.4
1991	176	2.0	142	1.9	1.8	30	3.6	4.1	4	--	--

¹ Hispanic origin could not be identified on the Massachusetts death certificate before 1989; thus, Hispanic trend data are not available. Most Hispanics are included in the race category of white.

² Infant: A child less than one year (365 days) old.

³ Deaths of infants of unknown race are excluded except for total calculation. For rate computations, infants of unknown race are allocated into race categories according to the distribution of births of known race.

⁴ Other: Asian, American Indian, and other race.

⁵ The rates presented in the columns labeled "old" are calculated using infant's race; the "new" rates are calculated using mother's race. Further explanation is presented in the introduction to this section.

⁶ Infant, neonatal and post neonatal mortality rates are per 1,000 live births.

⁷ Neonate: A child less than 28 days old.

⁸ Calculations based on fewer than five events are excluded.

⁹ Post Neonate: A child whose age is at least 28 days, but less than one year.

TABLE D-3
INFANT AND NEONATAL DEATHS BY SELECTED CAUSES
MASSACHUSETTS RESIDENT DEATHS
1991

Cause of Death	ICD-9 ¹	Infant (<1 year) # %	Neonatal (<28 days) # %
TOTAL		576 100.0	400 100.0
Septicemia	038	4 0.0 ²	1 0.0
Diseases of the Central Nervous System	320-326	1 0.0	0 0.0
Diseases of the Circulatory System	390-459	15 2.6	8 2.0
Diseases of the Respiratory System	460-519	9 1.6	3 0.0
Diseases of the Digestive System	520-579	10 1.7	1 0.0
Congenital Anomalies	740-759	129 22.4	98 24.5
Congenital anomalies of the nervous system	740-742	20	13
Congenital anomalies of the heart	745-746	43	31
Congenital anomalies of the circulatory system, excluding heart	747	6	4
Congenital anomalies of the respiratory system	748	21	21
Congenital anomalies of the digestive system	749-751	1	0
Congenital anomalies of the musculoskeletal system	754-756	13	12
Chromosomal anomalies	758	13	7
Unspecified congenital anomalies	759	12	10
Certain Conditions Originating in the Perinatal Period	760-779	296 51.4	272 68.0
Newborn affected by maternal complications of pregnancy	761	38	38
Newborn affected by complications of placenta, cord and membranes	762	20	20
Disorders relating to short gestation and unspecified low birthweight	765	54	51
Intrauterine hypoxia and birth asphyxia	768	12	10
Respiratory distress syndrome	769	45	43
Other respiratory conditions	770	59	46
Infections specific to the perinatal period	771	9	8
Ill-defined conditions originating in the prenatal period	779	36	35
Sudden Infant Death Syndrome (SIDS)	798.0	58 10.1	7 1.7
Injuries	E800-E999	11 1.9	3 0.0
All Other Causes	Residual	43 7.5	7 1.7

¹ The ICD-9 subcategories are only selected causes, and the sum does not equal the total.

² Calculations based on fewer than five events are excluded.

TABLE D-4
INFANT AND NEONATAL DEATHS BY AGE, SEX, RACE AND ETHNICITY
MASSACHUSETTS RESIDENT DEATHS
1991

	TOTAL			WHITE NON-HISPANIC			BLACK NON-HISPANIC			HISPANIC			ASIAN			OTHER		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total (< one year) ¹ Rate ²	576 6.5	313 6.9	263 6.1	380 6.5	205 5.8	175 5.2	101 15.0	53 15.5	48 14.4	80 9.4	48 11.0	32 7.8	14 4.2	6 3.4	8 5.2	1 --	1 --	0 --
< One Day	232	110	122	142	69	73	47	20	27	36	19	17	7	2	5	0	0	0
1 Day	38	22	16	23	13	10	6	5	1	8	4	4	1	0	1	0	0	0
2 Days	23	15	8	19	11	8	4	4	0	0	0	0	0	0	0	0	0	0
3 Days	17	11	6	12	6	6	1	1	0	3	3	0	1	1	0	0	0	0
4 Days	8	4	4	8	4	4	0	0	0	0	0	0	0	0	0	0	0	0
5 Days	7	5	2	6	4	2	1	1	0	0	0	0	0	0	0	0	0	0
6 Days	2	2	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0
< One Week Rate ²	327 3.7	169 3.7	158 3.7	212 3.1	109 3.1	103 3.1	59 8.7	31 9.1	28 8.4	47 5.5	26 5.9	21 5.1	9 2.7	3 --	6 3.9	0 --	0 --	0 --
7-13 Days	32	20	12	23	14	9	5	3	2	4	3	1	0	0	0	0	0	0
14-27 Days	41	25	16	30	19	11	8	4	4	2	1	1	1	1	0	0	0	0
< 28 Days Rate ²	400 4.5	214 4.7	186 4.3	265 3.9	142 4.0	123 3.7	72 10.7	38 11.1	34 10.2	63 6.2	30 5.9	23 5.6	10 3.0	4 --	6 3.9	0 --	0 --	0 --
1 Month	48	23	25	26	11	15	11	5	6	8	5	3	2	1	1	1	1	0
2 Months	39	23	16	28	17	11	5	3	2	5	3	2	1	0	1	0	0	0
3 Months	20	12	8	15	9	6	2	1	1	3	2	1	0	0	0	0	0	0
4 Months	15	7	8	9	4	5	2	1	1	4	2	2	0	0	0	0	0	0
5 Months	11	8	3	7	5	2	2	1	1	2	2	0	0	0	0	0	0	0
6 Months	10	8	2	5	3	2	3	3	0	1	1	1	1	1	0	0	0	0
7 Months	7	4	3	5	3	2	2	1	1	0	0	0	0	0	0	0	0	0
8 Months	8	5	3	6	3	3	0	0	0	2	2	0	0	0	0	0	0	0
9 Months	7	4	3	6	3	3	0	0	0	1	1	0	0	0	0	0	0	0
10 Months	8	3	5	5	3	2	2	0	2	1	1	1	0	0	0	0	0	0
11 Months	3	2	1	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0

¹ In calculating infant mortality rates by race, deaths of infants of unknown race are excluded except for total calculation. For rate computations, infants of unknown race are allocated into race categories according to the distribution of births of known race.

² Rates per 1,000 live births.

³ Calculations based on fewer than five events are excluded.

Figure D-3

Neonatal Deaths by Mean Birthweight 1969-1991

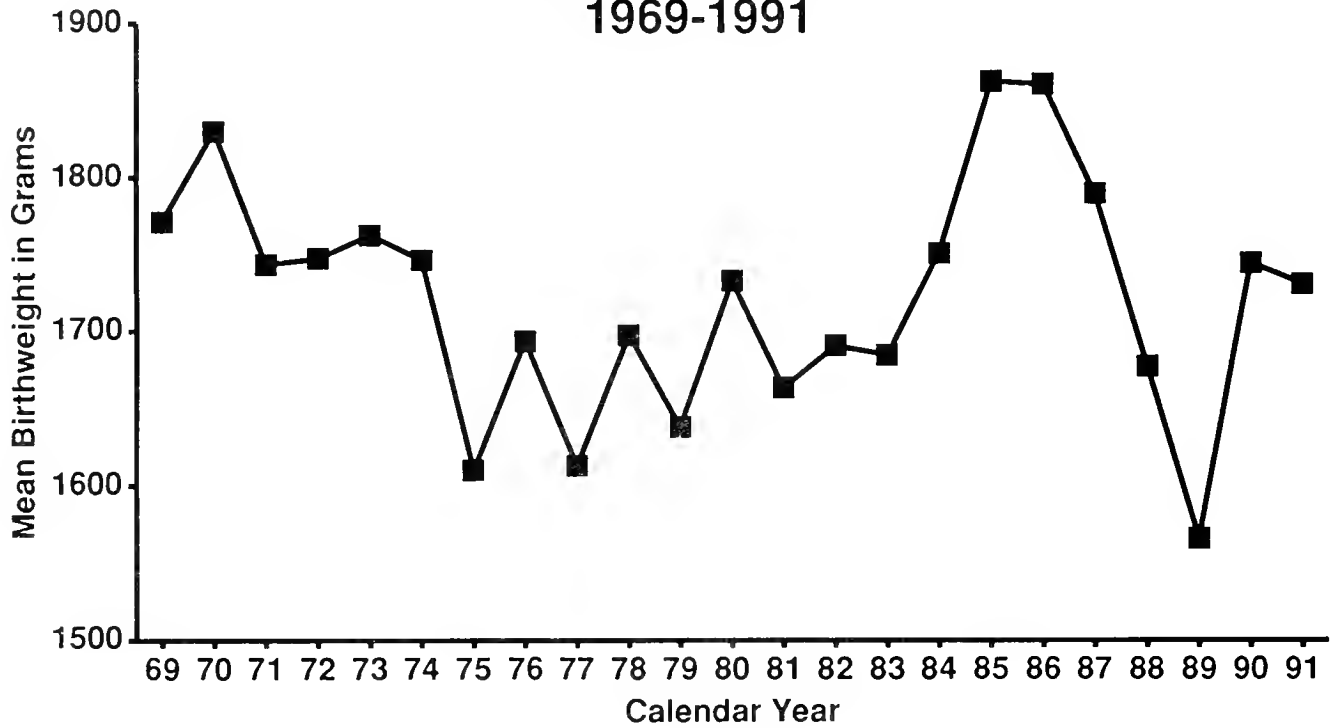


TABLE D-5
NEONATAL MORTALITY BY BIRTHWEIGHT¹
MASSACHUSETTS RESIDENT BIRTHS/DEATHS
1980-1991

All Birthweights			< 500 grams	500-1499 grams	1500-2499 grams	2500-4499 grams	4500-8165 grams	Unknown
1980	Neonatal Deaths	539	85	237	73	112	4	28
	Births	72,627	90	650	3,687	66,714	1,398	88
	Rate ²	7.4	944.4	364.6	19.8	1.7	2.9	318.2
1981	Neonatal Deaths	467	74	202	56	95	4	36
	Births	73,960	84	666	3,687	67,968	1,474	81
	Rate	6.3	881.0	303.3	15.2	1.4	2.7	444.4
1982	Neonatal Deaths	567	90	263	69	127	3	15
	Births	75,771	91	752	3,614	69,785	1,461	68
	Rate	7.5	989.0	349.7	19.1	1.8	2.0	220.6
1983	Neonatal Deaths	484	90	210	53	103	3	25
	Births	76,080	96	709	3,688	69,906	1,594	87
	Rate	6.4	937.5	296.2	14.4	1.5	1.9	287.4
1984	Neonatal Deaths	479	87	172	60	98	3	59
	Births	78,237	94	667	3,839	71,826	1,693	118
	Rate	6.1	925.5	257.9	15.6	1.4	1.8	500.0
1985	Neonatal Deaths	534	117	193	72	119	7	26
	Births	81,844	123	754	3,910	75,216	1,746	95
	Rate	6.5	951.2	256.0	18.4	1.6	4.0	273.7
1986	Neonatal Deaths	479	101	166	59	100	9	44
	Births	82,324	107	693	3,880	74,648	1,849	1,147
	Rate	5.8	943.9	239.5	15.2	1.3	4.9	38.4
1987	Neonatal Deaths	427	93	155	61	80	6	32
	Births	84,343	93	713	4,041	77,200	1,906	390
	Rate	5.1	1000.0	217.4	15.1	1.0	3.1	82.0
1988	Neonatal Deaths	443	107	189	44	86	6	11
	Births	88,047	108	869	4,289	80,617	1,864	300
	Rate	5.0	990.7	217.5	10.3	1.1	3.2	36.7
1989	Neonatal Deaths	496	133	214	49	80	4	16
	Births	91,728	141	930	4,375	84,175	1,973	134
	Rate	5.4	943.3	230.1	11.2	0.9	2.0	119.4
1990	Neonatal Deaths	445	115	174	46	90	1	19
	Births	92,686	124	858	4,432	85,146	1,874	252
	Rate	4.8	927.4	202.8	10.4	1.1	0.5	75.4
1991	Neonatal Deaths	401	96	159	45	83	5	13
	Births	88,176	102	900	4,198	81,066	1,829	81
	Rate	4.5	941.2	176.7	10.7	1.0	2.7	160.5

¹ The figures used in this table cannot be directly compared with other tables in this report. Please refer to the "Neonatal Mortality By Birthweight" portion of the Section D narrative for further explanation.

² Rates are per 1,000 resident live births.

MARRIAGES & DIVORCES

SECTION E

MARRIAGES AND DIVORCES

Marriages and divorces are reported by place of occurrence in Massachusetts. For example, if two Norwood residents are married in Canton, this marriage will be reported by place of occurrence (Canton) rather than the residence of the couple (Norwood). Marriages have traditionally been reported in this manner because of the number of couples who live in different communities. Additionally, out-of-state residents who marry in Massachusetts are included in these data.

Marriages and divorces which involve Massachusetts residents, but occur in other states, are not included in these figures. No system of interstate exchange exists for these events. Unlike some states, Massachusetts marriage and divorce laws neither encourage out-of-state residents to come to the state nor discourage residents from using the Massachusetts system by imposing long waiting periods, etc. This allows the marriage data to be used to estimate resident marriages.

In 1991, 44,621 marriages occurred in Massachusetts compared to 47,786 in 1990, a decrease of 6.6%. The rate of marriages was 7.4 per 1,000 population in 1991, a decrease from the 1990 rate of 7.9. The 1991 U.S. rate of marriages per 1,000 population was 9.4, slightly less than the 1990 rate of 9.8. Of the brides, 75.4% had never previously married. This percentage was slightly less among the grooms--74.4%.

In 1991, 14,987 divorces were granted in Massachusetts, a decrease of 7.8% from the 16,258 divorces granted in 1990. The 1991 rate of divorce per 1,000 population in Massachusetts was 2.5. This rate was well below the 1991 U.S. rate of 4.7 divorces per 1,000 population.

RATES IMPORTANT FOR THIS SECTION INCLUDE:

MARRIAGE RATE $\frac{\text{Number of Occurrence Marriages}}{\text{Total Population}} \times 1,000$

DIVORCE RATE $\frac{\text{Number of Occurrence Divorces}}{\text{Total Population}} \times 1,000$

**TABLE E-1
MARRIAGES AND DIVORCES BY COUNTY
MASSACHUSETTS OCCURRENCE
1991**

	MARRIAGES	DIVORCES
STATE TOTAL	44,621	14,987
<u>COUNTIES</u>		
BARNSTABLE	2,103	598
BERKSHIRE	1,166	209
BRISTOL	3,659	1,626
DUKES	329	58
ESSEX	5,208	1,918
FRANKLIN	495	116
HAMPDEN	3,281	1,449
HAMPSHIRE	978	312
MIDDLESEX	10,118	2,480
NANTUCKET	237	35
NORFOLK	4,398	1,473
PLYMOUTH	3,077	1,448
SUFFOLK	4,495	1,008
WORCESTER	5,077	2,257

Figure E-1

Rates of Marriages and Divorces per 1,000 Population 1900-1991

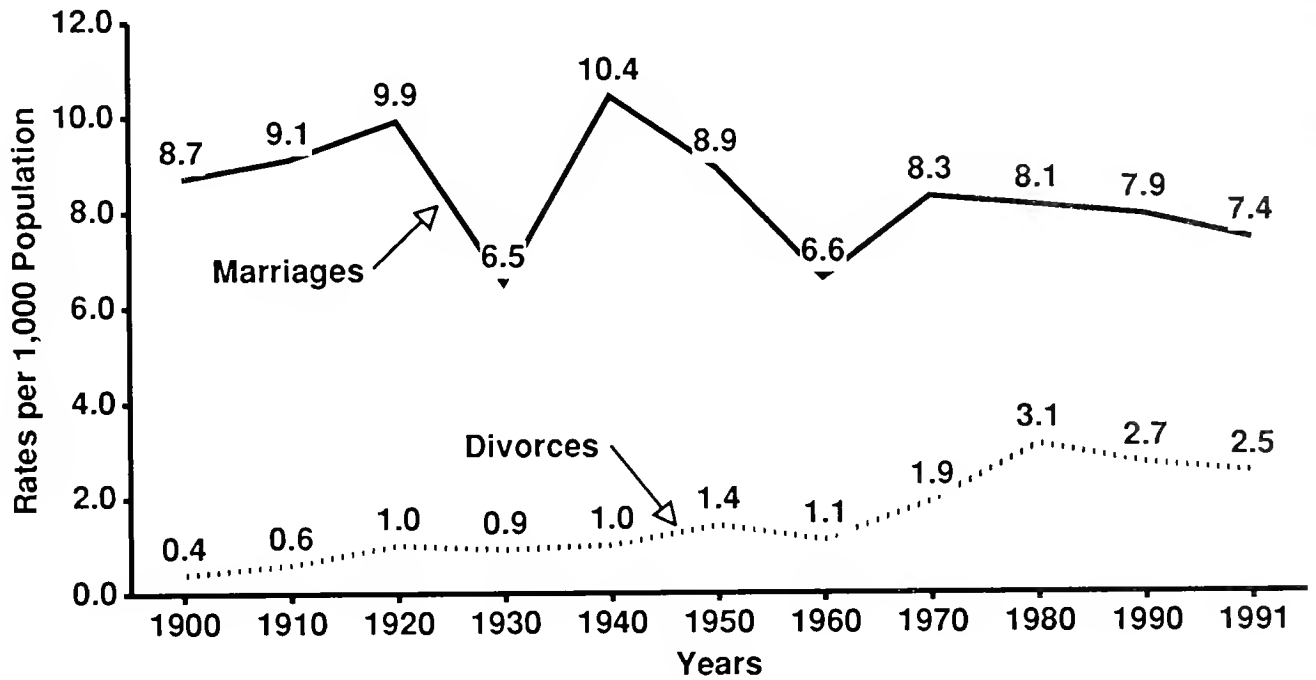


TABLE E-2
MARRIAGES AND DIVORCES AND RATES PER 1,000 POPULATION
MASSACHUSETTS OCCURRENCE
1900-1991

YEAR	MARRIAGES		DIVORCES	
	NUMBER	RATE	NUMBER	RATE
1900	24,342	8.7	1,258	0.4
1905	27,184	9.1	1,554	0.5
1910	30,710	9.1	1,929	0.6
1915	31,301	8.5	2,252	0.6
1920	38,048	9.9	3,647	1.0
1925	31,238	7.5	3,395	0.8
1930	27,431	6.5	3,746	0.9
1935	30,019	6.9	4,081	0.9
1940	44,836	10.4	4,502	1.0
1945	38,197	8.5	6,833	1.5
1950	41,711	8.9	6,365	1.4
1955	35,585	7.3	5,601	1.2
1960	34,050	6.6	5,592	1.1
1965	38,281	7.2	7,728	1.5
1970	47,292	8.3	10,818	1.9
1975	42,103	7.3	16,460	2.8
1980	46,273	8.1	17,873	3.1
1981	47,802	8.3	19,502	3.4
1982	48,654	8.4	19,531	3.4
1983	48,789	8.4	18,477	3.2
1984	50,302	8.7	17,123	3.0
1985	49,849	8.6	21,573	3.7
1986	49,990	8.6	19,809	3.4
1987	49,034	8.4	16,994	2.9
1988	49,941	8.5	17,676	3.0
1989	49,174	8.4	16,819	2.9
1990	47,786	7.9	16,258	2.7
1991	44,621	7.4	14,987	2.5

**TABLE E-3
MARRIAGES BY AGE AND MARITAL STATUS
MASSACHUSETTS OCCURRENCE
1991**

BRIDE								
Age	Total		Single		Widowed		Divorced	
	Number	% ¹	Number	%	Number	%	Number	%
TOTAL	44,621	100.0	33,661	75.4	933	2.1	10,027	22.5
< 20	1,887	100.0	1,877	99.5	1	** ²	9	0.5
20-29	26,418	100.0	24,234	91.7	41	0.2	2,143	8.1
30-39	11,549	100.0	6,785	58.7	154	1.3	4,610	39.9
40-49	3,416	100.0	668	19.6	219	6.4	2,529	74.0
50-59	887	100.0	73	8.2	215	24.2	599	67.5
60-69	333	100.0	19	5.7	194	58.3	120	36.0
≥ 70	131	100.0	5	3.8	109	83.2	17	13.0
GROOM								
Age	Total		Single		Widowed		Divorced	
	Number	%	Number	%	Number	%	Number	%
TOTAL	44,621	100.0	33,211	74.4	1,015	2.3	10,395	23.3
< 20	662	100.0	662	100.0	0	**	0	**
20-29	23,150	100.0	21,936	94.8	11	**	1,203	5.2
30-39	13,966	100.0	9,489	67.9	89	0.6	4,388	31.4
40-49	4,355	100.0	960	22.0	136	3.1	3,259	74.8
50-59	1,514	100.0	119	7.9	233	15.4	1,162	76.7
60-69	664	100.0	37	5.6	299	45.0	328	49.4
≥ 70	310	100.0	8	2.6	247	79.7	55	17.7

¹ Percents do not sum to 100.0 due to rounding.

² **Percentages less than 0.1 are excluded.

TABLE E-4
NUMBER OF MARRIAGES BY AGE OF BRIDE AND AGE OF GROOM
MASSACHUSETTS OCCURRENCE
1991

AGE OF GROOM								
AGE OF BRIDE	TOTAL	< 20	20-29	30-39	40-49	50-59	60-69	≥ 70
TOTAL	44,621	662	23,150	13,966	4,355	1,514	664	310
< 20	1,887	435	1,366	82	3	0	1	0
20-29	26,418	215	19,268	6,331	547	53	4	0
30-39	11,549	9	2,380	6,760	2,057	294	43	6
40-49	3,416	3	128	755	1,591	749	166	24
50-59	887	0	7	37	152	372	256	63
60-69	333	0	1	1	5	43	178	105
≥ 70	131	0	0	0	0	3	16	112

TABLE E-5
NUMBER OF MARRIAGES FOR BRIDE BY NUMBER OF MARRIAGES FOR GROOM
MASSACHUSETTS OCCURRENCE
1991

NUMBER OF MARRIAGES						
BRIDE	GROOM					
	TOTAL	1	2	3	4	≥ 5
TOTAL	44,621	33,212	9,630	1,603	161	15
1	33,662	28,757	4,365	499	38	3
2	9,266	3,990	4,394	791	82	9
3	1,518	418	782	286	30	2
4	149	41	77	20	10	1
≥ 5	26	6	12	7	1	0

POPULATION

SECTION F

POPULATION

The population data in this section are presented for use in computing rates for small areas and for reporting changes over time by municipality and county. They are based primarily on the U.S. Federal Census for 1990.

Prior to 1985, the Massachusetts State Census method of enumeration differed from the federal census. Generally, the state figures excluded non-resident students and military families residing in the Commonwealth; they are included in the U.S. Census definition of resident.

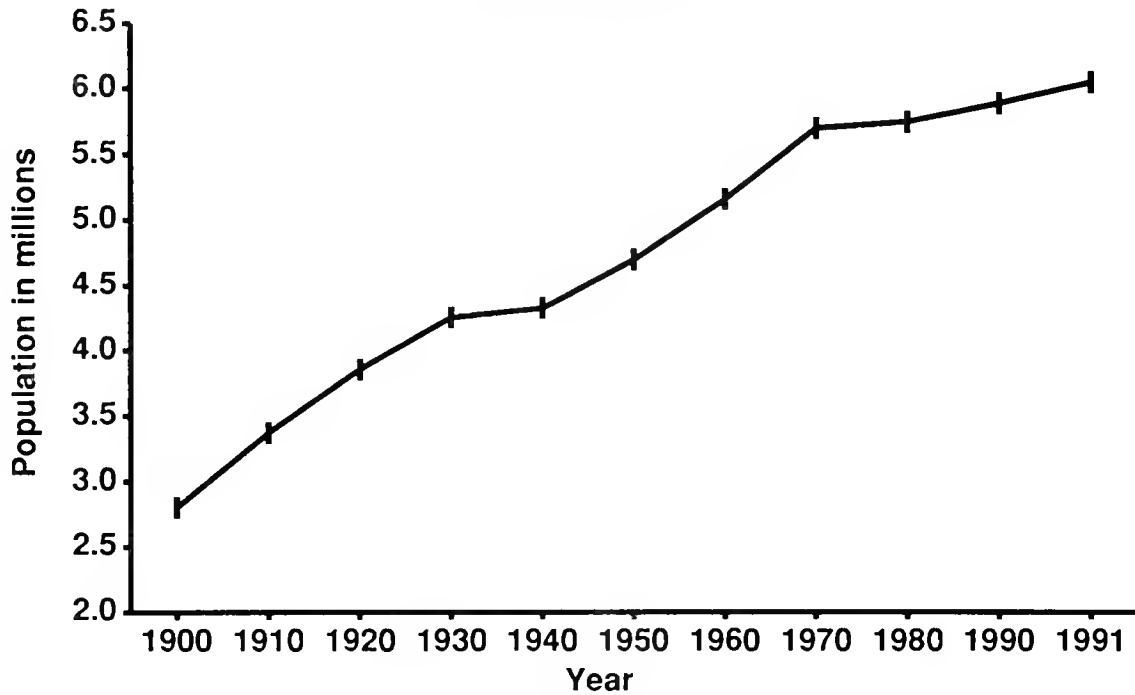
The Massachusetts population estimates for the years 1981-1989 (Table F-4) are calculated as linear interpolations from 1980 and 1990 U.S. Federal Census data. The 1991 population estimate is an interpolation of the 1990 U.S. Federal Census and MISER 1995 projections.

All additional interpolations and calculations have been provided by Robert A. Danley, Ph.D., Division of Research and Epidemiology, Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health.

In 1991, there were an estimated 6,038,684 residents of Massachusetts. This represents a 4.7% increase since 1981, when the population numbered 5,764,975. Among the total 1991 population, almost 48% were male, 25.9% were below the age of 20, and 6.0% were over 75 years of age.

Figure F-1

Massachusetts Population 1900-1991



**TABLE F-1
POPULATION BY RACE, AGE AND SEX
MASSACHUSETTS
1990¹**

AGE	SEX	TOTAL	WHITE	BLACK	OTHER
UNDER 1	MALE	46,018	40,463	3,925	1,630
	FEMALE	44,125	38,546	3,926	1,653
	TOTAL	90,143	79,009	7,851	3,283
1-4	MALE	169,427	149,849	13,663	5,915
	FEMALE	161,779	142,349	13,489	5,941
	TOTAL	331,206	292,198	27,152	11,856
5-9	MALE	193,482	172,170	14,393	6,919
	FEMALE	183,137	162,336	14,104	6,697
	TOTAL	376,619	334,506	28,497	13,616
10-14	MALE	177,899	159,257	13,226	5,416
	FEMALE	169,117	150,743	12,916	5,458
	TOTAL	347,016	310,000	26,142	10,874
15-19	MALE	209,289	187,227	14,627	7,435
	FEMALE	206,741	184,529	14,595	7,617
	TOTAL	416,030	371,756	29,222	15,052
20-24	MALE	256,657	231,290	16,344	9,023
	FEMALE	260,537	234,182	17,002	9,353
	TOTAL	517,194	465,472	33,346	18,376
25-29	MALE	277,295	251,142	16,785	9,368
	FEMALE	279,025	252,738	17,311	8,976
	TOTAL	556,320	503,880	34,096	18,344
30-34	MALE	268,701	244,766	15,346	8,589
	FEMALE	273,629	249,299	15,867	8,463
	TOTAL	542,330	494,065	31,213	17,052
35-39	MALE	237,202	217,981	12,403	6,818
	FEMALE	243,972	223,847	13,153	6,972
	TOTAL	481,174	441,828	25,556	13,790
40-44	MALE	211,399	196,542	9,811	5,046
	FEMALE	221,975	206,029	10,619	5,327
	TOTAL	433,374	402,571	20,430	10,373
45-49	MALE	162,636	152,146	7,024	3,466
	FEMALE	170,698	159,100	8,211	3,387
	TOTAL	333,334	311,246	15,235	6,853
50-54	MALE	126,581	118,555	5,246	2,780
	FEMALE	136,020	127,187	6,274	2,559
	TOTAL	262,601	245,742	11,520	5,339

¹ Figures are from the 1990 US Census.

TABLE F-1 (continued)
POPULATION BY RACE, AGE AND SEX
MASSACHUSETTS
1990

AGE	SEX	TOTAL	WHITE	BLACK	OTHER
55-59	MALE	120,175	113,887	4,238	2,050
	FEMALE	131,999	124,575	5,263	2,161
	TOTAL	252,174	238,462	9,501	4,211
60-64	MALE	121,609	116,299	3,762	1,548
	FEMALE	140,296	133,558	4,844	1,894
	TOTAL	261,905	249,857	8,606	3,442
65-69	MALE	110,424	106,135	3,064	1,225
	FEMALE	140,959	135,442	4,083	1,434
	TOTAL	251,383	241,577	7,147	2,659
70-74	MALE	85,541	82,863	1,965	713
	FEMALE	121,790	117,883	2,973	934
	TOTAL	207,331	200,746	4,938	1,647
75-79	MALE	59,037	57,350	1,199	488
	FEMALE	100,616	97,776	2,156	684
	TOTAL	159,653	155,126	3,355	1,172
80-84	MALE	33,468	32,561	669	238
	FEMALE	72,831	71,105	1,338	388
	TOTAL	106,299	103,666	2,007	626
≥ 85	MALE	21,905	21,324	439	142
	FEMALE	68,434	66,965	1,187	282
	TOTAL	90,339	88,289	1,626	424
TOTAL	MALE	2,888,745	2,651,807	158,129	78,809
	FEMALE	3,127,680	2,878,189	169,311	80,180
	TOTAL	6,016,425	5,529,996	327,440	158,989

Figure F-2

1990 Massachusetts Population by Age

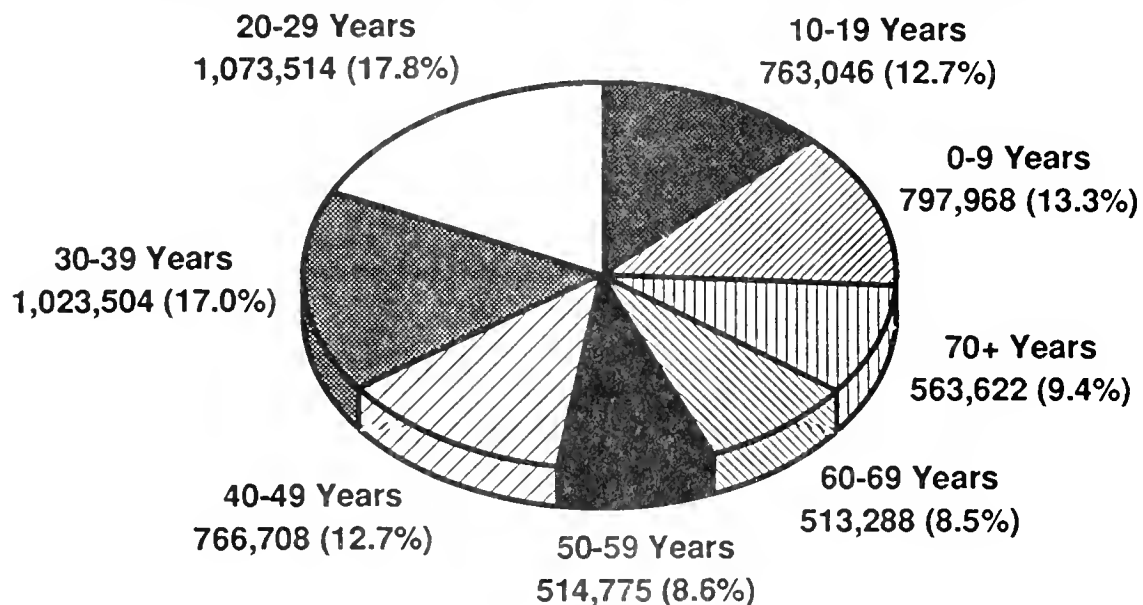
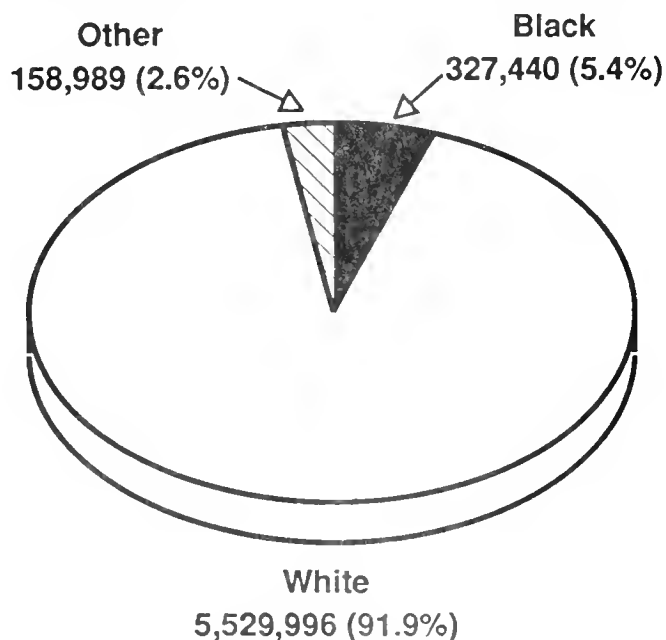


Figure F-3

1990 Massachusetts Population by Race



**TABLE F-2
MASSACHUSETTS POPULATION BY COUNTY
1960-1990**

	Federal 1960	State 1965 ¹	Federal 1970	State 1975 ²	Federal 1980	State 1985 ³	Federal 1990 ⁴
STATE	5,148,578	5,418,878	5,689,170	5,713,107	5,737,037	5,876,734	6,016,425
<u>Counties</u>							
Barnstable	70,286	83,471	96,656	122,291	147,925	167,265	186,605
Berkshire	142,135	145,769	149,402	147,256	145,110	142,231	139,352
Bristol	398,488	421,395	444,301	459,471	474,641	490,483	506,325
Dukes	5,829	5,973	6,117	7,530	8,942	10,291	11,639
Essex	568,831	603,359	637,887	635,760	633,632	651,856	670,080
Franklin	54,864	57,037	59,210	61,764	64,317	67,205	70,092
Hampden	429,353	444,202	459,050	451,034	443,018	449,664	456,310
Hampshire	103,229	113,605	123,981	131,397	138,813	142,691	146,568
Middlesex	1,238,742	1,318,005	1,397,268	1,382,151	1,367,034	1,382,751	1,398,468
Nantucket	3,559	3,667	3,774	4,431	5,087	5,550	6,012
Norfolk	510,256	557,654	605,051	605,819	606,587	611,337	616,087
Plymouth	248,449	290,882	333,314	369,376	405,437	420,357	435,276
Suffolk	791,329	763,260	735,190	692,666	650,142	657,024	663,906
Worcester	583,228	610,599	637,969	642,161	646,352	678,029	709,705

¹ 1965 State Census figures are interpolations of the 1960 and 1970 US Census counts.

² 1975 State Census figures are interpolations of the 1970 and 1980 US Census counts.

³ 1985 State Census figures are interpolations of the 1980 and 1990 US Census counts.

⁴ Figures are from the 1990 US Census.

TABLE F-3
MASSACHUSETTS POPULATION BY CITY AND TOWN
1980 and 1990

<i>City/Town</i>	<i>1980 US Census</i>	<i>1990 US Census</i>	<i>City/Town</i>	<i>1980 US Census</i>	<i>1990 US Census</i>
Abington	13,517	13,817	Dover	4,703	4,815
Acton	17,544	17,872	Dracut	21,249	25,584
Acushnet	8,704	8,564	Dudley	8,717	8,540
Adams	10,381	8,445	Dunstable	1,871	2,236
Agawam	28,271	27,323	Duxbury	11,807	13,885
Alford	394	418	East Bridgewater	8,945	11,104
Amesbury	13,871	14,987	East Brookfield	1,855	2,033
Amherst	33,228	35,228	East Longmeadow	12,905	13,367
Andover	28,370	28,151	Eastham	3,472	4,462
Arlington	48,219	44,830	Easthampton	15,580	15,537
Ashburnham	4,075	5,433	Easton	18,823	19,807
Ashby	2,311	2,717	Edgartown	2,204	3,082
Ashfield	1,458	1,715	Egremont	1,311	1,229
Ashland	9,165	12,068	Erving	1,328	1,372
Athol	10,834	11,451	Essex	2,998	3,280
Attleboro	34,188	38,383	Everett	37,185	35,701
Auburn	14,845	15,005	Fairhaven	15,759	16,132
Avon	5,028	4,558	Fall River	92,574	92,703
Ayer	8,883	8,871	Falmouth	23,840	27,880
Barnstable	30,888	40,948	Fitchburg	39,580	41,184
Barre	4,102	4,548	Florida	730	742
Becket	1,338	1,481	Foxborough	14,148	14,837
Bedford	13,087	12,886	Frammingham	85,113	84,989
Belchertown	8,339	10,579	Franklin	18,217	22,085
Bellingham	14,300	14,877	Freetown	7,058	8,522
Belmont	26,100	24,720	Gardner	17,900	20,125
Berkley	2,731	4,237	Gay Head	220	201
Berlin	2,215	2,283	Georgetown	5,887	8,384
Bernardston	1,750	2,048	Gill	1,258	1,583
Beverly	37,855	38,185	Gloucester	27,788	28,718
Billerica	38,727	37,608	Goshen	851	830
Blackstone	8,570	8,023	Gosnold	83	88
Blandford	1,038	1,187	Grafton	11,238	13,035
Bolton	2,530	3,134	Grenby	5,380	5,555
Boston	582,894	574,283	Grenville	1,204	1,403
Bourne	13,874	18,084	Great Barrington	7,405	7,725
Boxborough	3,128	3,343	Greenfield	18,438	18,686
Boxford	5,374	8,288	Groton	8,154	7,511
Boylston	3,470	3,517	Groveland	5,040	5,214
Braintree	38,337	33,838	Hadley	4,125	4,231
Brewster	5,228	8,440	Halifax	5,513	6,528
Bridgewater	17,202	21,248	Hamilton	8,950	7,280
Brimfield	2,318	3,001	Hampden	4,745	4,709
Brockton	85,172	82,788	Hancock	843	828
Brookfield	2,397	2,958	Hanover	11,358	11,812
Brookline	55,062	54,718	Hanson	8,817	9,028
Buckland	1,864	1,928	Hardwick	2,272	2,385
Burlington	23,488	23,302	Harvard	12,170	12,329
Cambridge	95,322	95,802	Harwich	8,971	10,275
Canton	18,182	18,530	Hatfield	3,045	3,184
Carlele	3,308	4,333	Haverhill	48,885	51,418
Carver	8,988	10,580	Hawley	280	317
Cherlemon	1,149	1,248	Heath	482	718
Charlton	8,718	9,576	Hingham	20,339	19,821
Chatham	8,071	8,579	Hinsdale	1,707	1,958
Chelmsford	31,174	32,383	Holbrook	11,140	11,041
Chelsea	25,431	28,710	Holden	13,338	14,828
Cheshire	3,124	3,479	Holland	1,589	2,185
Chester	1,123	1,280	Holliston	12,822	12,828
Chesterfield	1,000	1,048	Holyoke	44,878	43,704
Chicopee	55,112	55,832	Hopedale	3,805	5,868
Chilmark	489	650	Hopkinton	7,114	8,181
Clarksburg	1,871	1,745	Hubbardston	1,787	2,797
Clinton	12,771	13,222	Hudson	16,408	17,233
Cohasset	7,174	7,075	Hull	9,714	10,486
Colrain	1,552	1,757	Huntington	1,804	1,887
Concord	16,293	17,078	Ipswich	11,158	11,873
Conway	1,213	1,529	Kingston	7,382	8,045
Cummington	857	785	Lakeville	5,931	7,785
Dalton	8,787	7,155	Lancaster	8,334	8,881
Danvers	24,100	24,174	Lanesborough	3,131	3,032
Dartmouth	23,988	27,244	Lawrence	83,175	70,207
Dedham	25,298	23,782	Lee	8,247	5,849
Deerfield	4,517	5,018	Leicester	9,448	10,181
Dennis	12,380	13,864	Lenox	8,523	5,069
Dighton	5,352	5,831	Leominster	34,508	38,145
Douglas	3,730	5,438	Leverett	1,471	1,785

TABLE F-3 (continued)
MASSACHUSETTS POPULATION BY CITY AND TOWN
1980 and 1990

<u>City/Town</u>	<u>1980 US Census</u>	<u>1990 US Census</u>	<u>City/Town</u>	<u>1980 US Census</u>	<u>1990 US Census</u>
Lexington	29,478	28,874	Pepperell	8,081	10,088
Leyden	488	882	Peru	833	779
Lincoln	7,088	7,668	Petersham	1,024	1,131
Littleton	8,970	7,051	Phillipston	953	1,486
Longmeadow	16,301	15,487	Pittsfield	51,974	48,622
Lowell	82,418	103,438	Plainfield	426	671
Ludlow	18,160	18,820	Plainville	5,857	6,871
Lunenburg	8,405	8,117	Plymouth	36,913	45,608
Lynn	78,471	81,245	Plympton	1,874	2,384
Lynnfield	11,267	11,274	Princeton	2,426	3,188
Malden	53,388	53,884	Provincetown	3,638	3,661
Manchester	5,424	5,266	Quincy	64,743	64,885
Mansfield	13,463	16,568	Randolph	28,218	30,083
Marblehead	20,126	18,871	Reynham	9,086	8,867
Marion	3,832	4,486	Reading	22,878	22,538
Marlborough	30,817	31,813	Rehoboth	7,570	8,656
Marshfield	20,816	21,631	Revere	42,423	42,786
Mashpee	3,700	7,884	Richmond	1,859	1,677
Mattapoisett	5,587	5,850	Rochester	3,206	3,821
Meynard	9,580	10,325	Rockland	15,685	16,123
Medfield	10,220	10,531	Rockport	6,345	7,482
Medford	58,076	57,407	Rowe	338	378
Medway	8,447	9,931	Rowley	3,887	4,462
Melrose	30,056	28,150	Royaleton	955	1,147
Mendon	3,108	4,010	Russell	1,570	1,584
Merrimac	4,451	5,166	Rutland	4,334	4,838
Methuen	36,701	38,980	Salem	38,220	38,081
Middleborough	18,404	17,867	Salisbury	5,873	8,882
Middlefield	385	382	Sandisfield	720	687
Middleton	4,136	4,921	Sandwich	8,727	15,489
Milford	23,380	25,355	Saugus	24,746	25,548
Millbury	11,808	12,228	Savoy	644	634
Millis	6,808	7,613	Scituate	17,317	16,786
Millville	1,683	2,236	Seekonk	12,269	13,046
Milton	25,880	25,726	Sharon	13,601	15,517
Monroe	178	116	Sheffield	2,743	2,810
Monson	7,315	7,778	Shelburne	2,002	2,012
Montague	8,011	8,316	Sherborn	4,048	3,988
Monterey	618	805	Shirley	5,124	6,118
Montgomery	637	759	Shrewsbury	22,674	24,146
Mount Washington	83	135	Shutesbury	1,049	1,561
Nahant	3,847	3,828	Somerset	18,613	17,655
Nantucket	5,087	6,012	Somerville	77,372	76,210
Natick	28,461	30,510	South Hadley	18,388	16,685
Needham	27,801	27,557	Southampton	4,137	4,478
New Ashford	159	182	Southborough	8,183	6,828
New Bedford	98,478	88,822	Southbridge	18,885	17,818
New Braintree	671	681	Southwick	7,382	7,567
New Marlborough	1,180	1,240	Spencer	10,774	11,645
New Salem	888	802	Springfield	152,318	156,883
Newbury	4,528	5,623	Sterling	5,440	6,481
Newburyport	15,900	16,317	Stockbridge	2,328	2,408
Newton	83,622	82,585	Stoneham	21,424	22,203
Norfolk	6,363	8,270	Stoughton	28,710	26,777
North Adams	18,063	16,787	Stow	5,144	5,328
North Andover	20,129	22,792	Sturbridge	5,976	7,775
North Attleboro	21,085	25,038	Sudbury	14,027	14,358
North Brookfield	4,150	4,708	Sunderland	2,928	3,388
North Reading	11,455	12,002	Sutton	5,855	8,824
Northampton	28,286	28,288	Swampscott	13,837	13,650
Northborough	10,588	11,928	Swansea	15,481	15,411
Northbridge	12,246	13,371	Taunton	46,001	49,832
Northfield	2,386	2,838	Templeton	6,070	6,438
Norton	12,690	14,255	Tewksbury	24,835	27,256
Norwell	9,182	8,278	Tibury	2,972	3,120
Norwood	28,711	28,700	Tolland	235	288
Oak Bluffs	1,884	2,604	Topsfield	5,709	5,754
Oakham	884	1,503	Townsend	7,201	8,486
Orange	8,844	7,312	Truro	1,486	1,573
Orleans	5,308	5,838	Tyngsborough	5,683	8,842
Otis	983	1,073	Tyringham	344	389
Oxford	11,680	12,588	Upton	3,888	4,677
Palmer	11,388	12,054	Uxbridge	8,374	10,415
Paxton	3,762	4,047	Wakefield	24,885	24,825
Peabody	45,876	47,038	Wales	1,177	1,568
Pelham	1,112	1,373	Walpole	18,859	20,212
Pembroke	13,487	14,544	Waltham	58,200	57,878

TABLE F-3 (continued)
MASSACHUSETTS POPULATION BY CITY AND TOWN
1980 and 1990

<u>City/Town</u>	<u>1980 US Census</u>	<u>1990 US Census</u>
Ware	8,953	9,808
Wareham	18,467	19,232
Warren	3,777	4,437
Warwick	803	740
Washington	687	816
Watertown	34,364	33,264
Weyland	12,170	11,874
Webster	14,480	16,198
Wellesley	27,208	28,816
Wellfleet	2,208	2,493
Wendell	684	888
Wenham	3,897	4,212
West Boylston	8,204	8,811
West Bridgewater	6,359	6,368
West Brookfield	3,028	3,532
West Newbury	2,861	3,421
West Springfield	27,042	27,537
West Stockbridge	1,280	1,463
West Tisbury	1,010	1,704
Westborough	13,818	14,133
Westfield	36,485	38,372
Westford	13,434	16,392
Westhampton	1,137	1,327
Westminster	5,139	8,181
Weston	11,168	10,200
Westport	13,763	13,852
Westwood	13,212	12,557
Weymouth	56,801	54,083
Whately	1,341	1,375
Whitman	13,534	13,240
Wilbraham	12,053	12,836
Williamsburg	2,237	2,515
Williamstown	8,741	8,220
Wilmington	17,471	17,651
Winchendon	7,019	8,805
Winchester	20,701	20,287
Windsor	586	770
Winthrop	19,284	18,127
Woburn	36,626	35,943
Worcester	161,788	188,758
Worthington	932	1,158
Wrentham	7,580	8,008
Yarmouth	18,448	21,174
STATEWIDE TOTALS	5,737,037	6,016,425

TABLE F-4
POPULATION COUNTS AND ESTIMATES, MASSACHUSETTS
1980-1991

AGE GROUP	YEAR	TOTAL	MALE	FEMALE
0-4	1980	337,215	173,029	164,186
	1981	345,629	177,271	168,358
	1982	354,042	181,512	172,530
	1983	362,455	185,754	176,701
	1984	370,868	189,995	180,873
	1985	379,282	194,237	185,045
	1986	387,696	198,479	189,217
	1987	396,109	202,720	193,389
	1988	404,522	206,962	197,560
	1989	412,935	211,203	201,732
	1990	421,349	215,445	205,904
	1991	414,476	211,926	202,550
5-9	1980	374,734	191,602	183,132
	1981	374,923	191,790	183,133
	1982	375,111	191,978	183,133
	1983	375,300	192,166	183,134
	1984	375,488	192,354	183,134
	1985	375,677	192,542	183,135
	1986	375,865	192,730	183,135
	1987	376,054	192,918	183,136
	1988	376,242	193,106	183,136
	1989	376,431	193,294	183,137
	1990	376,619	193,482	183,137
	1991	377,918	194,157	183,761
10-14	1980	461,332	235,669	225,663
	1981	449,900	229,892	220,008
	1982	438,469	224,115	214,354
	1983	427,037	218,338	208,699
	1984	415,606	212,561	203,045
	1985	404,174	206,784	197,390
	1986	392,742	201,007	191,735
	1987	381,311	195,230	186,081
	1988	369,879	189,453	180,426
	1989	358,448	183,676	174,772
	1990	347,016	177,899	169,117
	1991	353,412	181,166	172,246
15-19	1980	548,239	274,859	273,380
	1981	535,018	268,302	266,716
	1982	521,797	261,745	260,052
	1983	508,576	255,188	253,388
	1984	495,355	248,631	246,724
	1985	482,135	242,074	240,061
	1986	468,914	235,517	233,397
	1987	455,693	228,960	226,733
	1988	442,472	222,403	220,069
	1989	429,251	215,846	213,405
	1990	416,030	209,289	206,741
	1991	415,428	209,079	206,349

TABLE F-4 (continued)
POPULATION COUNTS AND ESTIMATES, MASSACHUSETTS
1980-1991

AGE GROUP	YEAR	TOTAL	MALE	FEMALE
20-24	1980	552,902	270,713	282,189
	1981	549,331	269,307	280,024
	1982	545,761	267,902	277,859
	1983	542,189	266,496	275,693
	1984	538,619	265,091	273,528
	1985	535,048	263,685	271,363
	1986	531,477	262,279	269,198
	1987	527,907	260,874	267,033
	1988	524,335	259,468	264,867
	1989	520,765	258,063	262,702
	1990	517,194	256,657	260,537
	1991	504,121	250,187	253,934
25-29	1980	489,175	239,341	249,834
	1981	495,889	243,136	252,753
	1982	502,604	246,932	255,672
	1983	509,318	250,727	258,591
	1984	516,033	254,523	261,510
	1985	522,748	258,318	264,430
	1986	529,462	262,113	267,349
	1987	536,177	265,909	270,268
	1988	542,891	269,704	273,187
	1989	549,606	273,500	276,106
	1990	556,320	277,295	279,025
	1991	542,906	270,616	272,290
30-34	1980	446,395	217,649	228,746
	1981	455,988	222,754	233,234
	1982	465,582	227,859	237,723
	1983	475,176	232,965	242,211
	1984	484,769	238,070	246,699
	1985	494,363	243,175	251,188
	1986	503,956	248,280	255,676
	1987	513,549	253,385	260,164
	1988	523,143	258,491	264,652
	1989	532,737	263,596	269,141
	1990	542,330	268,701	273,629
	1991	537,086	266,041	271,045
35-39	1980	348,552	169,502	179,050
	1981	361,814	176,272	185,542
	1982	375,076	183,042	192,034
	1983	388,339	189,812	198,527
	1984	401,601	196,582	205,019
	1985	414,863	203,352	211,511
	1986	428,125	210,122	218,003
	1987	441,387	216,892	224,495
	1988	454,650	223,662	230,988
	1989	467,912	230,432	237,480
	1990	481,174	237,202	243,972
	1991	487,579	240,363	247,216

TABLE F-4 (continued)
POPULATION COUNTS AND ESTIMATES, MASSACHUSETTS
1980-1991

AGE GROUP	YEAR	TOTAL	MALE	FEMALE
40-44	1980	278,748	134,925	143,823
	1981	294,210	142,572	151,638
	1982	309,673	150,220	159,453
	1983	325,136	157,867	167,269
	1984	340,599	165,515	175,084
	1985	356,061	173,162	182,899
	1986	371,523	180,809	190,714
	1987	386,986	188,457	198,529
	1988	402,449	196,104	206,345
	1989	417,912	203,752	214,160
	1990	433,374	211,399	221,975
	1991	443,742	216,488	227,254
45-49	1980	278,261	134,444	143,817
	1981	283,768	137,263	146,505
	1982	289,275	140,082	149,193
	1983	294,783	142,902	151,881
	1984	300,290	145,721	154,569
	1985	305,798	148,540	157,258
	1986	311,305	151,359	159,946
	1987	316,812	154,178	162,634
	1988	322,320	156,998	165,322
	1989	327,827	159,817	168,010
	1990	333,334	162,636	170,698
	1991	345,718	168,718	177,000
50-54	1980	306,574	146,211	160,363
	1981	302,177	144,248	157,929
	1982	297,779	142,285	155,494
	1983	293,382	140,322	153,060
	1984	288,985	138,359	150,626
	1985	284,588	136,396	148,192
	1986	280,190	134,433	145,757
	1987	275,793	132,470	143,323
	1988	271,396	130,507	140,889
	1989	266,998	128,544	138,454
	1990	262,601	126,581	136,020
	1991	277,035	133,625	143,410
55-59	1980	310,995	145,603	165,392
	1981	305,113	143,060	162,053
	1982	299,230	140,517	158,713
	1983	293,349	137,975	155,374
	1984	287,467	135,432	152,035
	1985	281,585	132,889	148,696
	1986	275,702	130,346	145,356
	1987	269,820	127,803	142,017
	1988	263,939	125,261	138,678
	1989	258,056	122,718	135,338
	1990	252,174	120,175	131,999
	1991	258,415	123,216	135,199


TABLE F-4 (continued)
POPULATION COUNTS AND ESTIMATES, MASSACHUSETTS
1980-1991

AGE GROUP	YEAR	TOTAL	MALE	FEMALE
60-64	1980	277,384	126,323	151,061
	1981	275,837	125,852	149,985
	1982	274,288	125,380	148,908
	1983	272,741	124,909	147,832
	1984	271,192	124,437	146,755
	1985	269,645	123,966	145,679
	1986	268,097	123,495	144,602
	1987	266,549	123,023	143,526
	1988	265,001	122,552	142,449
	1989	263,453	122,080	141,373
	1990	261,905	121,609	140,296
	1991	259,702	120,630	139,072
65-69	1980	235,574	101,023	134,551
	1981	237,155	101,963	135,192
	1982	238,736	102,903	135,833
	1983	240,316	103,843	136,473
	1984	241,897	104,783	137,114
	1985	243,479	105,724	137,755
	1986	245,060	106,664	138,396
	1987	246,641	107,604	139,037
	1988	248,221	108,544	139,677
	1989	249,802	109,484	140,318
	1990	251,383	110,424	140,959
	1991	248,181	109,072	139,109
70-74	1980	187,041	73,235	113,806
	1981	189,070	74,466	114,604
	1982	191,099	75,696	115,403
	1983	193,128	76,927	116,201
	1984	195,157	78,157	117,000
	1985	197,186	79,388	117,798
	1986	199,215	80,619	118,596
	1987	201,244	81,849	119,395
	1988	203,273	83,080	120,193
	1989	205,302	84,310	120,992
	1990	207,331	85,541	121,790
	1991	208,014	85,869	122,145
75-79	1980	137,828	48,145	89,683
	1981	140,010	49,234	90,776
	1982	142,193	50,323	91,870
	1983	144,376	51,413	92,963
	1984	146,558	52,502	94,056
	1985	148,741	53,591	95,150
	1986	150,923	54,680	96,243
	1987	153,105	55,769	97,336
	1988	155,288	56,859	98,429
	1989	157,471	57,948	99,523
	1990	159,653	59,037	100,616
	1991	162,139	59,983	102,156

TABLE F-4 (continued)
POPULATION COUNTS AND ESTIMATES, MASSACHUSETTS
1980-1991

AGE GROUP	YEAR	TOTAL	MALE	FEMALE
80 84	1980	92,180	28,513	63,667
	1981	93,592	29,009	64,583
	1982	95,004	29,504	65,500
	1983	96,416	30,000	66,416
	1984	97,828	30,495	67,333
	1985	99,240	30,991	68,249
	1986	100,651	31,486	69,165
	1987	102,064	31,982	70,082
	1988	103,475	32,477	70,998
	1989	104,888	32,973	71,915
	1990	106,299	33,468	72,831
	1991	108,378	34,156	74,222
≥ 85	1980	73,908	20,107	53,801
	1981	75,551	20,287	55,264
	1982	77,195	20,467	56,728
	1983	78,837	20,646	58,191
	1984	80,480	20,826	59,654
	1985	82,124	21,006	61,118
	1986	83,767	21,186	62,581
	1987	85,410	21,366	64,044
	1988	87,052	21,545	65,507
	1989	88,696	21,725	66,971
	1990	90,339	21,905	68,434
	1991	94,434	22,982	71,452
TOTAL	1980	5,737,037	2,730,893	3,006,144
	1981	5,764,975	2,746,678	3,018,297
	1982	5,792,914	2,762,462	3,030,452
	1983	5,820,854	2,778,250	3,042,604
	1984	5,848,792	2,794,034	3,054,758
	1985	5,876,737	2,809,820	3,066,917
	1986	5,904,670	2,825,604	3,079,066
	1987	5,932,611	2,841,389	3,091,222
	1988	5,960,548	2,857,176	3,103,372
	1989	5,988,490	2,872,961	3,115,529
	1990	6,016,425	2,888,745	3,127,680
	1991	6,038,684	2,898,274	3,140,410

APPENDICES

1. RECORD NUMBER	C H I L D	3C. COUNTY	 The Commonwealth of Massachusetts DEPARTMENT OF PUBLIC HEALTH REGISTRY OF VITAL RECORDS AND STATISTICS STANDARD CERTIFICATE OF LIVE BIRTH		3D. CITY/TOWN MAKING RETURN
1A. CERTIFICATE NUMBER (DPH USE ONLY)		3B. CITY/TOWN			3E. REGISTERED NUMBER
2. FACILITY NUMBER		3A. FACILITY NAME—IF NOT IN FACILITY, NUMBER AND STREET	NAME	4A. FIRST	4B. MIDDLE
	5. SEX	6A. PLURALITY (Specify Single, Twin, etc.)	6B. BIRTH ORDER (If not single, Specify Order First, Second, etc.)	7. TIME	8. DATE OF BIRTH (Month, Day, Year)

1 OCCURRENCE	C E R T I F I C A T E	9A. SIGNATURE (I Certify that the Child was Born Alive at Date and Time and Place Stated)	9B. TYPE OR PRINT NAME	9C. LICENSE NUMBER			
		9D. NO. & STREET	9E. CITY/TOWN	9F. STATE	9G. ZIP CODE	9H. DATE SIGNED (Month, Day, Year)	
		9I. TYPE	9J. TITLE				
		<input type="checkbox"/> AT-BIRTH <input type="checkbox"/> POST-NATAL <input type="checkbox"/> CERTIFIER ONLY	<input type="checkbox"/> MD/DO <input type="checkbox"/> CNM <input type="checkbox"/> OTH RN <input type="checkbox"/> MIDWIFE <input type="checkbox"/> OTHER				
		NAME	10A. FIRST	10B. MIDDLE	10C. LAST	10D. MAIDEN SURNAME	
		BIRTHPLACE	11A. CITY/TOWN	11B. STATE/COUNTRY	12. DATE OF BIRTH (Month, Day, Year)		
		RESIDENCE (Do not use mailing address)	13A. NUMBER AND STREET	13B. CITY/TOWN	13C. COUNTY	13D. STATE	13E. ZIP CODE
		NAME	14A. FIRST	14B. MIDDLE	14C. LAST		
		BIRTHPLACE	15A. CITY/TOWN	15B. STATE/COUNTRY	16. DATE OF BIRTH (Month, Day, Year)		
		22A. SOCIAL SECURITY CARD	17A. I (WE) CERTIFY THAT THE PERSONAL INFORMATION APPEARING ABOVE IS TRUE AND CORRECT.	17B. RELATIONSHIP TO CHILD			
<input type="checkbox"/> YES	17C. DATE SIGNED (Month, Day, Year)	17D. MAILING ADDRESS (If different from item # 13 above)	NUMBER AND STREET	CITY	STATE	ZIP CODE	
INITIALS	22B. RESIDENT COPY	18. DATE OF RECORD (Month, Day, Year)	19. SUPPLEMENT FILED (Month, Day, Year)	20. CLERK/REGISTRAR			
<input type="checkbox"/> YES	INITIALS	21. CLERK/REGISTRAR DPH USE ONLY					

M O T H E R	23A. OCCUPATION PAST YEAR	23B. INDUSTRY PAST YEAR	24A. RACE	24B. ANCESTRY	25. EDUCATION A. Elem./Sec. (0-12) B. College (0-4,5+)
			<input type="checkbox"/> White <input type="checkbox"/> Black <input type="checkbox"/> Asian <input type="checkbox"/> Amer. Indian <input type="checkbox"/> Other (Specify)		
F A T H E R	26A. OCCUPATION PAST YEAR	26B. INDUSTRY PAST YEAR	27A. RACE	27B. ANCESTRY	28. EDUCATION A. Elem./Sec. (0-12) B. College (0-4,5+)
			<input type="checkbox"/> White <input type="checkbox"/> Black <input type="checkbox"/> Asian <input type="checkbox"/> Amer. Indian <input type="checkbox"/> Other (Specify)		

29. PRIOR LIVE BIRTHS A. NOW LIVING	B. BORN LIVE-NOW DEAD	C. DATE OF LAST LIVE BIRTH (Month, Day, Year)	30. TERMINATIONS	DATE LAST TERMINATION (Month, Day, Year)	31A. DATE LAST MENSES BEG. (Month, Day, Year)	
# <input type="checkbox"/> NONE	# <input type="checkbox"/> NONE		# <input type="checkbox"/> NONE			
31B. CLINICAL EST GEST.	32. MONTH OF PREG. PRENATAL CARE BEGAN (First, Second, etc.)	33. TOTAL NUMBER PRENATAL VISITS	34. WEIGHT GAINED DURING PREG	35A. TYPE OF PRACTITIONER PROVIDING PRENATAL CARE:		
WEEKS		# <input type="checkbox"/> NONE LBS		<input type="checkbox"/> MD/DO <input type="checkbox"/> PA <input type="checkbox"/> NP <input type="checkbox"/> CNM <input type="checkbox"/> OTHER RN <input type="checkbox"/> MIDWIFE <input type="checkbox"/> OTHER (Specify)		
35B. SITE OF PRENATAL CARE:		35C. PRENATAL CARE METHOD OF PAYMENT			36A. ALCOHOL	36B. TOBACC
<input type="checkbox"/> PRIVATE <input type="checkbox"/> HOSP CLINIC <input type="checkbox"/> HMO <input type="checkbox"/> CHC <input type="checkbox"/> Other (Specify)		<input type="checkbox"/> BLUE CROSS <input type="checkbox"/> COMM INS. <input type="checkbox"/> HMO <input type="checkbox"/> MEDICAID <input type="checkbox"/> MEDICARE <input type="checkbox"/> HEALTHY START <input type="checkbox"/> OTHER GOVT <input type="checkbox"/> WORK COMP. <input type="checkbox"/> SELF-PAY <input type="checkbox"/> FREE CARE <input type="checkbox"/> OTHER (Spec.)				

36C. MEDICAL RISK FACTORS (Separate by commas—Include up to 8 items)					
37. METHOD OF DELIVERY: VAGINAL AFTER PRIMARY REPEAT <input type="checkbox"/> VAGINAL <input type="checkbox"/> PRIOR C-SECTION <input type="checkbox"/> C-SECTION <input type="checkbox"/> C-SECTION <input type="checkbox"/> FORCEPS <input type="checkbox"/> VACUUM				38. COMPLICATIONS OF LABOR (Separate by commas—Include up to 10 items) AND DELIVERY	
39. OBSTETRIC PROCEDURES (Separate by commas—Include up to 10 items)			40. BIRTHWEIGHT	41. APGAR SCORE (0-10)	
			LBS. OZ OR GRAMS	A 1 Minute B 5 Minute	
42. DELIVERY PAYMENT:			43. MARRIED?	44. CONGENITAL ANOMALIES (Include up to 5 items)	
<input type="checkbox"/> BLUE CROSS <input type="checkbox"/> COMM <input type="checkbox"/> HMO <input type="checkbox"/> MEDICAID <input type="checkbox"/> MEDICARE <input type="checkbox"/> HEALTHY ST <input type="checkbox"/> OTHER GOVT <input type="checkbox"/> WORK COMP <input type="checkbox"/> SELF-PAY <input type="checkbox"/> FREE CARE <input type="checkbox"/> OTHER (Spec)			<input type="checkbox"/> YES <input type="checkbox"/> NO		
45. ABNORMAL CONDITIONS OF NEWBORN (Include up to 5 items)			46. CHILD IS	47. BREASTFEEDING?	
			<input type="checkbox"/> LIVING <input type="checkbox"/> DEAD	<input type="checkbox"/> YES <input type="checkbox"/> NO	
49. INFANT TRANSFERRED?			50a. MOTHER'S SOCIAL SECURITY NUMBER.		50b. FATHER'S SOCIAL SECURITY NUMBER.
<input type="checkbox"/> NO <input type="checkbox"/> YES TO					



The Commonwealth of Massachusetts
STANDARD CERTIFICATE OF DEATH
REGISTRY OF VITAL RECORDS AND STATISTICS

REGISTERED NUMBER

STATE USE ONLY

STATE USE ONLY
1a PLACE
1c HOSP
5 TYPE
7 VET
8 HISP RACE
9 EDUC
10 AGE
11 NATIVITY
12 MARITAL
15 RESID
15 OUT-STATE
23 DISP
31-32 AUTOP
33 MED EXAM
34 MANNER
35C WORK INJ
35F PLACE
36-37 CERT
40A RN PRO

DECEDENT

INFORMANT

DISPOSITION

CERTIFIER

DECEDENT - NAME FIRST MIDDLE LAST		SEX	DATE OF DEATH (Mo., Day, Yr.)	
1		2	3	
PLACE OF DEATH (City/Town)		COUNTY OF DEATH	HOSPITAL OR OTHER INSTITUTION - Name (If not in either, give street and number)	
4a		4b	4c	
PLACE OF DEATH (Check only one) HOSPITAL: <input type="checkbox"/> Inpatient <input type="checkbox"/> ER/Outpatient <input type="checkbox"/> DOA OTHER: <input type="checkbox"/> Nursing Home <input type="checkbox"/> Residence <input type="checkbox"/> Other (Specify)			SOCIAL SECURITY NUMBER	IF US WAR VETERAN SPECIFY WAR
5			6	7
WAS DECEDENT OF HISPANIC ORIGIN? (If yes, Specify Puerto Rican, Dominican, Cuban, etc.) <input type="checkbox"/> NO <input type="checkbox"/> YES 8a Specify		RACE (e.g. White, Black, American Indian, etc.) (Specify) 8b		DECEDENT'S EDUCATION (Highest Grade Completed) Elem/Sec (0-12) College (1-4, 5+)
AGE - Last Birthda (Yrs.)		UNDER 1 YEAR MOS. DAYS	UNDER 1 DAY HOURS MINS	DATE OF BIRTH (Mo., Day, Yr.)
10a		b	c	10d
BIRTHPLACE (City and State or Foreign Country)		11		
MARRIED, NEVER MARRIED WIDOWED OR DIVORCED		LAST SPOUSE (If wife, give maiden name)		USUAL OCCUPATION (Prior - If retired)
12		13		14a
KIND OF BUSINESS OR INDUSTRY				14b
RESIDENCE - NO. & ST., CITY/TOWN, COUNTY, STATE/COUNTRY				ZIP CODE
15a				15b
FATHER - FULL NAME		STATE OF BIRTH (If not in US, name country)	MOTHER - NAME (GIVEN) (MAIDEN)	STATE OF BIRTH (If not in US, name country)
16		17	18	19
INFORMANT'S NAME		MAILING ADDRESS - NO. & ST., CITY/TOWN, STATE, ZIP CODE		
20		21		
22		23		
METHOD OF DISPOSITION <input type="checkbox"/> BURIAL <input type="checkbox"/> CREMATION <input type="checkbox"/> ENTOMBMENT <input type="checkbox"/> REMOVAL FROM STATE 23 <input type="checkbox"/> DONATION <input type="checkbox"/> OTH. SPEC		FUNERAL SERVICE LICENSEE LICENSE #		
24		25		
PLACE OF DISPOSITION (Name of Cemetery, Crematory or other)		LOCATION (City/Town, State)		
26a		26b		
DATE OF DISPOSITION (Mo., Day, Yr.)		NAME AND ADDRESS OF FACILITY		
27		28a/b		
29 PART I - Enter the diseases, injuries, or complications that caused the death. Do not use only the mode of dying, such as cardiac or respiratory arrest, shock or heart failure. List only one cause on each line (e through d) PRINT OR TYPE LEGIBLY. IMMEDIATE CAUSE (Final disease or condition resulting in death) → Sequentially list conditions, if any leading to immediate cause. Enter UNDERLYING CAUSE (disease or injury that initiated events resulting in death) LAST.				Approximate Interval Between Onset and Death
a _____ DUE TO (OR AS A CONSEQUENCE OF)				
b _____ DUE TO (OR AS A CONSEQUENCE OF)				
c _____ DUE TO (OR AS A CONSEQUENCE OF)				
d _____				
PART II - Other significant conditions contributing to death but not resulting in underlying cause given in Part I				
30				
WAS CASE REFERRED TO ME? (Yes or No)		34 MANNER OF DEATH <input type="checkbox"/> NATURAL <input type="checkbox"/> HOMICIDE <input type="checkbox"/> COULD NOT BE DETERMINED <input type="checkbox"/> ACCIDENT <input type="checkbox"/> SUICIDE <input type="checkbox"/> PENDING INVESTIGATION		DATE OF INJURY (Mo., Day, Yr.)
33		35a		31
DESCRIBE HOW INJURY OCCURRED		PLACE OF INJURY - At home, farm, street, factory, office bldg., etc. Specify	LOCATION (No. & St., City/Town, State)	
35d		35e	35f	
36a To the best of my knowledge, death occurred at the time, date, and place and due to the cause(s) stated (Signature and Title)		37a On the basis of examination and/or investigation in my opinion death occurred at the time, date, and place and due to the cause(s) stated (Signature and Title)		
DATE SIGNED (Mo., Day, Yr.)		DATE SIGNED (Mo., Day, Yr.)		
36b		37b		
NAME OF ATTENDING PHYSICIAN IF NOT CERTIFIER		PRONOUNCED DEAD (Mo., Day, Yr.)		
36d		37d		
NAME AND ADDRESS OF CERTIFYING PHYSICIAN OR MEDICAL EXAMINER (Type or Print)				LICENSE NO. OF CERTIFIER
38				39
WAS THERE AN RN PRONOUNCEMENT? Yes or No		IF YES, DATE PRONOUNCED	IF YES, TIME PRONOUNCED	40d NAME OF PRONOUNCING REGISTERED NURSE NAME
40a		40b	40c	M
DATE BURIAL PERMIT ISSUED		RECEIVED IN THE CITY/TOWN OF		DATE OF RECORD
SIGNATURE - BO OF HEALTH AGENT		CLERK'S SIGNATURE		43
41		42		

BLACK INK ONLY

REPORT OF FETAL DEATH

STATE FILE NUMBER

1a. HOSPITAL—NAME (If not in hospital, give street and number)				1b. CITY, TOWN OR LOCATION OF DELIVERY				1c. COUNTY OF DELIVERY																							
2a. DATE OF DELIVERY (Month, Day, Year)				2b. HOUR OF DELIVERY				2c. SEX OF FETUS				2d. WEIGHT OF FETUS																			
3a. MOTHER—MAIDEN NAME FIRST MIDDLE LAST								3b. AGE (at time of this delivery)				3c. RESIDENCE—STATE				3d. COUNTY															
4a. CITY, TOWN OR LOCATION								4b. STREET AND NUMBER								4c. PREGNANCY HISTORY (Complete each section)															
5a. RACE—(e.g., White, Black, American Indian, etc.) (Specify)								5b. EDUCATION (Specify only highest grade completed)								5c. DATE LAST NORMAL MENSTRUATION BEGAN (Month, Day, Year)								5d. IS MOTHER MARRIED? (Specify yes or no)							
6a. LIVE BIRTHS								6b. OTHER TERMINATIONS (Spontaneous and Induced)								6c. DATE OF LAST LIVE BIRTH (Month, Year)								6d. DATE OF LAST OTHER TERMINATION (as indicated in 6 or above) (Month, Year)							
7. MONTH OF PREGNANCY PRENATAL CARE BEGAN First, second, etc. (Specify)								8. PRENATAL VISITS—Total number (If none, so state)								9. THIS BIRTH—Single, Twin, triplet, etc. (Specify)								10. IF NOT SINGLE BIRTH—Born 1st, second, third, etc. (Specify)							
11a. FATHER—NAME FIRST MIDDLE LAST								11b. AGE (at time of this delivery)								11c. RACE—(e.g., White, Black, American Indian, etc.) (Specify)								11d. EDUCATION (Specify only highest grade completed)							
12a. CITY, TOWN OR LOCATION								12b. STREET AND NUMBER								12c. DATE OF LAST LIVE BIRTH (Month, Year)								12d. DATE OF LAST OTHER TERMINATION (as indicated in 6 or above) (Month, Year)							

MOTHER

FATHER

15. PART I Fetal or maternal condition directly causing fetal death		IMMEDIATE CAUSE (ENTER ONLY ONE CAUSE PER LINE FOR 1a, 1b, AND 1c)		Specify Fetal or Maternal	
1a. Fetal and/or maternal conditions, if any giving rise to the immediate cause (a), stating the underlying cause last		1a. DUE TO, OR AS A CONSEQUENCE OF		Specify Fetal or Maternal	
1b. Fetal and/or maternal conditions, if any giving rise to the immediate cause (b), stating the underlying cause last		1b. DUE TO, OR AS A CONSEQUENCE OF		Specify Fetal or Maternal	
1c. Fetal and/or maternal conditions, if any giving rise to the immediate cause (c), stating the underlying cause last		1c. DUE TO, OR AS A CONSEQUENCE OF		Specify Fetal or Maternal	
16. PART II OTHER SIGNIFICANT CONDITIONS OF FETUS OR MOTHER Conditions contributing to fetal death but not related to causes given in 1a		17. FETUS DIED BEFORE LABOR, DURING LABOR OR DELIVERY, UNKNOWN (Specify)		18. PHYSICIAN'S ESTIMATE OF GESTATION Weeks	
19. COMPLICATIONS OF PREGNANCY (Describe or write "none")		20. COMPLICATIONS OF LABOR AND/OR DELIVERY (Describe or write "none")		21. CONGENITAL MALFORMATIONS OR ANOMALIES OF FETUS (Describe or write "none")	
22. NAME OF PHYSICIAN OR ATTENDANT (Type or print)		23. NAME OF PERSON COMPLETING REPORT (Type or print)		24. TITLE	

CAUSE OF FETAL DEATH

25. BURIAL, CREMATION, OR BY HOSPITAL		26. CEMETERY OR CREMATORY—NAME OR WRITE "NONE"		27. LOCATION CITY OR TOWN STATE	
28. NAME OF FUNERAL DIRECTOR (If any)		29. NAME OF FACILITY (Hospital or Funeral Home)		30. ADDRESS OF FACILITY	

DISPOSITION

31. I HEREBY CERTIFY that this delivery occurred on the date stated and product of conception was not a live birth.		32. Signature of Attending Physician or Medical Examiner		33. TITLE	
---	--	--	--	-----------	--

CERTIFIER

DEFINITION:

"Fetal death" per chapter 111 section 202 of the M.G.L. means death prior to the complete expulsion or extraction from its mother of a fetus, irrespective of the duration of pregnancy, as indicated by the fact that after such expulsion or extraction the fetus does not breathe or show any other evidence of life such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles. A fetal death does NOT include an induced abortion as defined in section 12K of chapter 112 of M.G.L. . Spontaneous abortions are to be included.

TO BE REPORTED:

Only fetal deaths of twenty weeks or more gestation or of a weight of 350 grams or more are to be reported.

INSTRUCTIONS:

Return completed report within 10 days to the Registry of Vital Records and Statistics, Rm.



CERTIFICATE OF MARRIAGE

This certificate must be delivered to the person before whom the marriage is to be contracted before he proceeds to solemnize the same

Registered No. _____

1 Place of Marriage _____

City or Town _____

(Do not enter name of village or section of city or town)

2 Date of Marriage _____

(Month)

(Day)

(Year)

Intention No. _____

3 FULL NAME GROOM

12 FULL NAME BRIDE

3A SURNAME
AFTER MARRIAGE12A SURNAME
AFTER MARRIAGE

4 DATE OF BIRTH

5 OCCUPATION

13 DATE OF BIRTH

14 OCCUPATION

6 RESIDENCE

NO. & ST. _____

CITY/

TOWN _____

ZIP

ST. _____

CODE _____

15 RESIDENCE

NO. & ST. _____

CITY/

TOWN _____

ZIP

ST. _____

CODE _____

7 NUMBER OF
MARRIAGE
(1st, 2nd, 3rd, etc.)8 WIDOWED
OR DIVORCED16 NUMBER OF
MARRIAGE
(1st, 2nd, 3rd, etc.)17 WIDOWED
OR DIVORCED

9 BIRTHPLACE

(City or town)

(State or country)

18 BIRTHPLACE

(City or town)

(State or country)

10 MAIDEN NAME
OF MOTHER19 MAIDEN NAME
OF MOTHER11 NAME OF
FATHER20 NAME OF
FATHER

21 THE INTENTION OF MARRIAGE by the above-mentioned persons was duly entered by me in the records of the Community _____ according to law, this _____ day of _____ 19____

(Name of Community)

☐ COURT WAIVER Issued

(Month)

(Day)

(Year)

by

(City or Town Clerk or Registrar)

☐ AGE ORDER

THIS IS A PERMANENT RECORD.
Use only **durable black ink** or approved
black typewriter ribbon. Every item of
information should be carefully supplied.
ALTERATIONS AND ERASURES IN
THIS CERTIFICATE ARE FORBID-
DEN; PENALTY FOR VIOLATION,
ONE HUNDRED DOLLARS.

MGL CHAP. 207, §§ 28, 28A, 48, 49,
54, 57 and CHAP. 46, § 18.

☐ MEDICAL
CERTIFICATES
ON FILE

☐ COMMISSION
ON FILE

22 I HEREBY CERTIFY that I joined the above-named persons in marriage at No. _____
(If marriage was solemnized in a church, give its NAME instead of street and number)

(Name of city or town)

(Month)

(Day)

(Year)

Signature _____

Official station _____

(Minister of the Gospel, Clergyman, Priest, Rabbi, or Justice of the Peace)

(Print or type name)

Residence No. _____

St., City or Town of _____

23 Certificate recorded by city or town clerk _____

(Month)

(Day)

(Year)

CLERK OR REGISTRAR

The Commonwealth of Massachusetts
DEPARTMENT OF PUBLIC HEALTH
REGISTRY OF VITAL RECORDS AND STATISTICS
CERTIFICATE OF ABSOLUTE
DIVORCE OR ANNULMENT
(Chap. 208, Sec. 46 G.L.)
R-408

HUSBAND NAME		FIRST	MIDDLE	LAST
USUAL RESIDENCE STREET ADDRESS			CITY TOWN OR LOCATION	
2a		2b		
COUNTY	STATE	DATE OF BIRTH (Mo Day Yr)	NUMBER OF THIS MARRIAGE (1st 2nd Specify)	
2c	2d	3	4	
WIFE NAME		FIRST	MIDDLE	LAST
5a		5b		
USUAL RESIDENCE STREET ADDRESS			CITY TOWN OR LOCATION	
6a		6b		
COUNTY	STATE	DATE OF BIRTH (Mo Day Yr)	NUMBER OF THIS MARRIAGE (1st 2nd Specify)	
6c	6d	7	8	
DATE OF THIS MARRIAGE (Mo Day Yr)	NUMBER OF CHILDREN BORN ALIVE OF THIS MARRIAGE		NUMBER OF CHILDREN UNDER AGE 18 IN THIS FAMILY	
9	10a		10b	

FOR COURT USE ONLY			
COUNTY OF JUDGMENT		TITLE OF COURT	
11		11a	
DATE OF JUDGMENT NISI (Mo Day Yr)	TYPE OF JUDGMENT DIVORCE OR ANNULMENT (Specify)		DATE OF JUDGMENT ABSOLUTE (Mo Day Yr)
12	13		14
DOCKET NUMBER	NAME OF PLAINTIFF	CAUSE FOR WHICH GRANTED	
15	16	17	
SIGNATURE OF CERTIFYING OFFICIAL		TITLE OF OFFICIAL	
18a		18b	

**REGISTRY OF VITAL RECORDS AND STATISTICS
STAFF**

REGISTRAR
Elaine B. Trudeau

ASSISTANT REGISTRAR
Frances A. Vitagliano

ASSISTANT REGISTRAR FOR STATISTICS
Phyllis J. Zeuli

ADMINISTRATION

Alan S. Goldin, Director of Automation
Ramona A. Irving
Mary Lou F. Rossetti
Sally A. Woster, Field Representative

REGISTRATION UNIT

Phyllis A. Rotman, Coordinator
Waleska E. Ortiz
Mary E. Risser
Joline A. Romano
Charlene Treves

DATA QUALITY ASSURANCE/PUBLIC INFORMATION

Karin A. Barrett, Coordinator
Charlene Zion, Public Information Officer
Jane K. Purtill

STATISTICS UNIT

Maureen L. McKean, Supervisor
Maryann Benchater
Paul A. Budrow
Joan M. Burgess
Yuen Fei Chan-Lee
Robert A. Coffin III
Vanessa Jerry
Judy Y. Lim
Ann-Marie Neault
Mary J. Reddick
Anne M. Rupp
Glenda R. Sally

OPERATIONS UNIT

James C. Orseno, Supervisor
John R. Bussey

RECORDS UNIT

Lisa M. Varnerin, Coordinator
Andrew M. Adelman
Carol A. Bowers
Carlisle B. Corbin
June A. Deloney
Dean L. DiMartino
Justine Drinkwater
Robert G. Harzbecker
Richard T. Hegarty
Shana Hicks
Harold L. Leonard
Lisa M. Lupo
Donald T. McHugh
Ryan J. Wallace

BOSTON PUBLIC LIBRARY



3 9999 06351 811 0



MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH
BUREAU OF HEALTH STATISTICS, RESEARCH AND EVALUATION
REGISTRY OF VITAL RECORDS AND STATISTICS
150 TREMONT STREET, ROOM B-3
BOSTON, MASSACHUSETTS 02111

Bulk Rate
U.S. Postage
PAID
Boston, MA
Permit No. 637

